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Flying Operations

AEROMEDICAL EVACUATION OPERATIONS CONFIGURATION/MISSION PLANNING

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This supporting instruction implements AFPD 11-2, *Aircraft Rules and Procedures*. It establishes policy for the basic aeromedical evacuation (AE) configurations for C-130, C-141, C-17, KC-10, KC-135, C-5 and C-21 aircraft to safely and successfully accomplish their worldwide AE missions. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force. This Air Force Instruction (AFI) is applicable to Air Force Reserve Command (AFRC), Air National Guard (ANG) units, PACAF and USAFE. (ANG is considered to be a MAJCOM throughout this publication.)

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This document is new and must be completely reviewed.

SUMMARY OF CHANGES

This interim change incorporates guidance related to: Aeromedical Evacuation Operations for AECMs. In **Chapter 2**, Life Support Inventory, paragraphs **2.1.8.**, **2.2.** and **2.2.1.** were deleted to correct guidance. In **Chapter 3**, Patient Support Pallet (PSP), added paragraph **3.11.8.**: text clarifies enplaning/deplaning sequence. In **Chapter 4**, C-130 E, H. J Configurations, added paragraph **4.11.2.2.** to clarify electrical capability and added **CAUTION** for safety. In **Chapter 5**, C-17 Configurations, AE-1 Configuration (**5.1.**), AE-2 Configuration (**5.2.**) and note after paragraph **5.3.1.1.** were updated to reflect current guid-

ance. Paragraph 5.3.1.2. updated for clarity. Paragraph 5.3.2.2. was deleted to reflect current guidance. Figure number in paragraph 5.3.2.7. updated. **WARNING** added after paragraph 5.3.2.7.1. for safety. Grammatical error corrected in paragraph 5.3.2.7.2. Text added to paragraph 5.3.2.7.3. for clarity. Paragraph 5.4.1.1. updated and **EXCEPTION** added to clarify C-17 oxygen requirements. Paragraph 5.4.2.1. text changed to provide greater detail. Paragraphs 5.4.2.1.1. and 5.4.2.1.2.. added to provide electrical capability. Paragraphs/sub-paragraphs 5.6. through 5.6.9.3. added to incorporate Litter Station Augmentation Set concept of operations. In **Chapter 7**, KC-135 configurations, added note number 5 to AE-2 Configuration (7.3.). Paragraph 7.6.4. was deleted to reflect current guidance. Note after paragraph 7.7.2.4.4. was updated to reflect correct paragraph reference number. **Chapter 8**, C-5, deleted the following paragraphs: 8.2.1.2., 8.2.1.2.1., 8.2.1.2.2., 8.2.1.2.2.1., and 8.2.1.2.2.2. to renumber for correct sequence. Paragraph 8.2.2. and sub-paragraphs added to clarify electrical capability. **Chapter 9**, C-21 Configuration, paragraph 9.2.3.8. updated and paragraph 9.2.3.8.1. added to clarify electrical capability. **CAUTION** added after paragraph 9.2.4.3. to provide weight restriction. Paragraph 9.2.5.6. updated to clarify amps available. Paragraph 9.2.6.7.1. text updated to reflect current guidance. In **Chapter 10**, KC-10, updated paragraph 10.3.1. to reflect correct paragraph reference number. Paragraph 10.3.2. was deleted to reflect current guidance. Paragraph 10.4.2. text and **WARNING** after paragraph was also deleted to reflect current guidance. Paragraph 10.4.2.1. through 10.4.2.4. added to reflect current electrical capability. In **Chapter 11**, Accessory Kits, paragraph 11.1.1. was updated to reflect correct Table reference number. In **Attachment 1**, Glossary of References and Supporting Information, updated Abbreviations and Acronyms: abbreviations added. A bar (|) indicates a revision from the previous edition.

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Chapter 1

POLICY

1.1. General. This instruction establishes basic cargo compartment configuration, standard equipment, and location of such equipment aboard the C-130, C-141, C-17, KC-10, KC-135, C-5 and C-21 aircraft. Personnel using this AFI should be aware of the infinite number of available variations. Some aircraft have additional equipment installed that may affect configuring the aircraft as listed. The cargo compartment limitations listed herein are the most typical encountered in day-to-day operations. The times quoted are approximate figures and are configuration times only. They do not include de-configuration times. Aeromedical Evacuation Crews (AEC) do not require parachutes. MDS specific survival equipment is for primary flight crewmembers only.

1.1.1. **Applicability.** This AFI is applicable to all individuals/units involved with AE operations. It is a compilation of information from aircraft flight manuals, other Air Force directives, as well as an original source document for many areas. Basic source directives have precedence in the case of any conflicts, revisions, and matters of interpretation. For those areas where this AFI is the source document, waiver authority will be in accordance with paragraph 1.5.2. For those areas where this AFI repeats information contained in other source documents, waiver authority will be in accordance with source documents.

1.1.2. This AFI provides necessarily broad guidance and cannot address every conceivable circumstance. MCDs are expected to use their best judgment to ensure the safe conduct of the flight.

1.2. Responsibility. Personnel engaged in planning operations must consider the most appropriate configuration that satisfies mission requirements and permits the minimum amount of variations and man-hours to change. United States Air Force (USAF) units performing services on the aircraft (i.e., maintenance, aerial port, and life support) are responsible for configuring the aircraft in accordance with (IAW) appropriate 11-2MDS V3 Addenda A instruction and as outlined in mission directives, to include the stowage/installation of the equipment IAW the configuration and equipment tables outlined herein. The aircrew will normally accomplish some configurations with assistance by maintenance personnel. Aircrew personnel, during preflight, will ensure that required mission equipment has been provided and is properly installed. When the aircraft configuration is not completed prior to aircrew show time, the loadmaster (LM) or boom operator (BO) will assist in the completion of the configuration, after accomplishing required predeparture duties (i.e., preflight, loading, etc.). Items that can be corrected without maintenance assistance (i.e., seat belts, seat hooks, etc.) will be corrected by the LM/BO. LM's/BO's have overall responsibility for configuration management and proper installation of equipment on the aircraft.

1.3. Not Used.

1.4. Modifications. The configuration codes of this AFI may, if necessary, require modifications for a specific mission. Each modification must be carefully evaluated prior to mission operation to ensure maximum flight safety and compatibility with aircraft equipment. Each mission directive will identify the basic configuration by code and the modification, if necessary, to satisfy the mission requirement. For example, an AE mission may require more litters than available in configuration AE-1. Consult the appropriate configuration charts to determine at what location the desired additional litters can be installed and

which seats must be removed. Indicate in the mission directive, by position (left or right, and number) which seats are to be deleted and (by alphabetical position) the litter tier provisions to be installed.

1.5. Deviations and Waivers.

1.5.1. Do not deviate from the policies and guidance in this AFI under normal circumstances, except:

1.5.1.1. For safety.

1.5.1.2. When necessary to protect the crew, patients, passengers (PAX) or aircraft from a situation not covered by this AFI and immediate action is required. The pilot in command (PIC) is the ultimate authority and responsible for the course-of-action to be taken. Report deviations or exceptions without waiver through channels to Major Command Office of Primary Responsibility (MAJCOM OPR).

1.5.2. **Waivers.** Unless otherwise directed, waiver authority for contents of this instruction is the MAJCOM/DO with mission execution authority. Obtain waivers to deviate from provisions in this AFI via MAJCOM Stan/Eval. For missions under AMC/TACC operational control, direct all waiver requests directly to TACC. **EXCEPTION:** Contingency missions. Waiver authority for contingency missions will be listed in the Operations Order (OPORD), Tasking Order (TO), etc., or is the Director of Mobility Forces (DIRMOBFOR) (or equivalent) for the agency with Command and Control (C2) of the aircraft. Crewmembers may request additional information or confirmation from their home units, Tanker Airlift Control Center TACC, or MAJCOM/DO.

Chapter 2

LIFE SUPPORT INVENTORY

2.1. Emergency Passenger Oxygen System (EPOS):

2.1.1. The EPOS is a self-contained protective breathing device to provide oxygen during aircraft decompressions, when smoke or toxic fumes are present, and to aid in exiting oxygen deficient smoke filled cabins.

2.1.2. EPOS is the preferred passenger oxygen, smoke, and fume protection.

2.1.3. The system consists of a hood, oxygen cylinder, carbon dioxide control, and neck seal. The hood incorporates multiple layers of Kapton and Teflon film providing heat and flame resistant to 1000°C (1832° F), ease of communication, tear resistance, and durability.

2.1.4. An anti-fog coating is applied to the inside of the hood.

2.1.5. The EPOS contains one oxygen cylinder that contains 18 liters of aviator grade oxygen.

Once activated, the oxygen cylinder dispenses oxygen for approximately 5 minutes. The sound of oxygen can be heard flowing into the hood. Once the oxygen cylinder has been depleted, the hood will start collapsing. If the hood collapses to the point where it touches the wearer's face, the wearer should be prepared to remove the EPOS. EPOS should also be removed when the individual has evacuated to a safe area, or is directed to do so by a qualified crewmember. Carbon dioxide (CO₂) is controlled by panels of lithium hydroxide mounted around the inside bottom portion of the hood.

2.1.6. Duration of Use:

2.1.6.1. 5 minutes under moderate to heavy workload.

2.1.6.2. 17 minutes of sedentary conditions followed by 3 minutes of moderate to heavy workload.

2.1.6.3. Up to 60 minutes under sedentary conditions.

2.1.7. The AE crew is responsible for ensuring that there are enough EPOS units for each crew member and patient. On aircraft with the EPOS stored in a sealed container, a preflight/postflight is to ensure that there are enough units inside the sealed container. If the EPOS units are in open containers check the package seal, if the seal is broken, a preflight consists of checking the color of the litmus paper on the humidity indicator disk located in the barrier pouch.

2.1.8. DELETE

2.1.9. For C-130 and KC-135 aircraft, ensure that there are EPOS units prepositioned at each patient/passenger positions. If not, work with the BO to place one at each station. Secure the EPOS on the upper seat support tube using the attached tie-down strap and quick release snap. Position the EPOS bag to the forward side of the passenger and between the seat back webbing to ensure rapid access.

2.1.10. For KC-135 aircraft, there are three EPOS aboard aircraft: ensure there is one in the latrine, one in the cockpit, and one at the galley/galley area. Notify BO if they are not there.

2.1.11. For aircraft with airline-type seating, EPOS will be placed in the seat pockets ; assist the BO/LM with handing out the EPOS to patients/passengers to be stored in seat pouches.

2.1.12. For C-17 aircraft, check for EPOS underneath each seat. Notify LM if they are missing.

2.1.13. For litter patients, AECMs will secure the EPOS at the head of each litter.

2.2. DELETE

2.2.1. DELETE

2.3. Emergency Escape Breathing Device (EEBD)/Protective Breathing Equipment (PBE). Units may utilize EEBDs, or PBEs with the fire retardant polyethylene (green) storage container and neoprene neck seal. EEBDs and PBEs will remain in their original "hard" carrying case to provide fire and puncture-proof protection.

2.3.1. This device is a 15 minute, self-contained, completely disposable breathing unit, with a solid state oxygen supply source. The universal size hood permits oral communication without compromising protection.

2.3.2. AECM preflight consists of checking the color of the light blue litmus paper through the serviceability window in the side of the case. If the litmus paper has turned pink, the unit is no longer serviceable.

2.3.3. Maximum operating altitude is 41,000 feet.

2.3.4. The containers are not to be opened unless an oxygen deficient, smoke-laden, or toxic atmosphere exist.

2.4. Life Preserver Units (LPU):

2.4.1. The adult/child (A/C) LPU is the preferred LPU for aircrew and patients/passengers during normal ditching situations. The A/C LPU does not require pre-fitting prior to flight and is easier to don during emergency situations. As a minimum, each aircraft will have one LPU for each passenger during overwater flights. AECMs must notify BO/LM if there are not enough A/C LPUs for each patient/PAX/AECM.

2.4.2. The LPU-2/P or 10/P LPUs are required and designed to integrate with life support equipment (LSE). Crewmembers wearing parachutes, survival vests, anti-exposure suits, and aircrew chemical defense equipment will use these LPUs during bailout or ditching. Adult/Child LPUs are not compatible for use with LSE and will not be used as a substitute for these LPUs.

2.4.3. The life vests are inflated by pulling the red CO2 release tabs or orally by using the manual inflation tubes.

2.5. Life Rafts. AECMs must ensure that there are sufficient types of life rafts aboard each aircraft on overwater flights to accommodate all aircrew and patients/passengers IAW T.O. 14S3-1-3, *Type and Number of Individual Survival Kit Containers and Life Rafts To Be Used In Various Type Aircraft*, and applicable MDS configuration tables. Place additional life rafts aboard aircraft when required. Notify BO/LM if there is not enough life rafts.

2.6. Civil Reserve Air Fleet (CRAF) Missions. All AE aircrews flying on CRAF aircraft are exempt from having to use the Aircrew Life Support (ALS) equipment except for the 358-series quick-don mask and MA-1 walk-around bottle and EPOS. This equipment is required for protection from smoke and

fumes and emergency decompressions. Travis and Charleston AFBs Aircrew Life Support (ALS) shops will maintain twelve (12) and thirteen (13) kits respectively, containing seven (7) each LPU-6/P infant cot life preservers and eleven (11) each EPOS to support AE CRAF missions. These CRAF support kits will only be mobilized to support CRAF AE operations.

Chapter 3

PATIENT SUPPORT PALLET (PSP)

3.1. General.

3.1.1. Applies to all personnel using the PSP for operational or ARM missions. The PSP increases the number of aircraft capable of performing patient movement during steady-state operations, times of war and military operations other than war. The PSP is intended for use on C-17, KC-10 and KC-135 cargo aircraft, only.

3.2. Description.

3.2.1. The PSP is manufactured to defined standards and tolerances that allow interchangeability of parts. The PSP has a protective finish on parts that are not inherently corrosion resistant and includes fastening devices that stay in position during service use. The PSP pallet base occupies the footprint of a 463L aircraft pallet. Standard airline seat track rails embedded in the surface of the pallet base provide mounting for the airline type seats and litter stanchions. Eight seat track rails are mounted in the 108-inch direction of the pallet base. The seat track rails are spaced at 12.60-inch and 20.75-inch intervals.

3.2.2. The pallet surface is covered with a non-skid material and supports up to six airline-type seats that are removable, forward or aft facing, and are Technical Standard Order (TSO) C-39b certified. Each seat has a reclining backrest, a padded armrest, an in-arm bi-fold tray table, a lap safety belt, a break-over backrest, and removable cloth upholstery. Each pallet has one large red cross on the pallet to ease identification of the pallet from other 463L pallets.

3.3. Requirements.

3.3.1. The PSP is designed to support steady-state theater operational requirements as well as patient movement on opportune airlift without integral litter capability. These requirements include contingencies, humanitarian relief operation (HUMRO), Homeland Defense, war, peacetime, routine and emergent missions.

3.3.2. Requirements are driven by the following factors: patients, aircraft, location factors to include; Air Mobility Support Squadrons and location of tanker aircraft.

3.4. AE Mission Execution.

3.4.1. The Aerial Port Control Center (APCC) or the Air Mobility Control Center (AMCC) will notify aerial ports of outbound/inbound mission and support requirements. PSPs will be transported and loaded onto aircraft IAW mission requirements/load plan.

3.4.2. At en route locations, reconfiguration and/or removal of PSP components, resulting in a change in either litter or ambulatory carrying capacity is not authorized, unless coordinated with TACC/AE Cell.

3.5. Responsibilities.

3.5.1. Aircrew.

3.5.1.1. Review Global Decision Support System (GDSS), and Special Instructions (SPINs) for mission changes/ reconfigurations.

3.5.2. AE Personnel.

3.5.2.1. Coordinate with LM/BO for loading and securing the PSP onboard the aircraft.

3.5.2.2. All crewmembers will establish egress routes and ensure access to emergency exits/ equipment is not obstructed by the PSP.

3.5.3. The LM/BO and AECM shall ensure that there is a reasonable degree of access to the rear of the aircraft, and that passengers and patients have ready access to emergency exits. Load aircraft in such a manner that allows for movement from the flight deck to the cargo for fire fighting.

3.5.3.1. Configure seats/litters on the PSP as required to meet mission requirements.

WARNING: Stanchion assembly and seat requires a two-person lift to prevent injury.

3.5.3.2. AECMs will inspect each PSP before and after mission use.

3.5.3.2.1. Damaged PSPs requiring major repair will be reported to the PSP custodian (identified at base of origin) and documented using AFTO IMT 244, **Industrial/Support Equipment Record**.

3.5.3.2.2. Immediate malfunctions/concerns will be resolved using crew Operational Risk Management (ORM) principles.

3.5.3.2.3. An AECM or designee will process paperwork DD Form 1149, **Requisition and Invoice/Shipping Document** and/or AFTO IMT 244.

NOTE: The PSP custodian should complete this form at home station, after contacting AMC/A38R for fund cite information. The DD Form 1149 will travel with the AECMs and be given to the PSP custodian upon return to home station.

3.5.4. Aerial Port.

3.5.4.1. Deliver and retrieve PSPs to and from the aircraft. The PSP was designed to interface with the 463L pallet system. Load the PSP using same methodology as the 463L pallet.

3.5.4.2. When it is anticipated that the PSP will leave and return to home station for a single mission, PSP custodian (or designee) with assistance from aerial port personnel, will remove/replace the rigid PSP storage cover as prescribed by local facility policy for aircraft configuration. AECMs are responsible for breaking down the PSP into the storage mode unless directed otherwise by APS personnel.

3.5.4.3. PSPs will be manifested and moved as 999 cargo IAW PSP concept of operations (CONOPS).

3.5.5. TACC/AE Cell.

3.5.5.1. Identifies configuration requirements in the Global Decision Support System (GDSS), and Special Instructions (SPINs) for mission changes/ reconfigurations.

3.5.5.2. Serve as conduit for information between AECMs, aerial port functions, and other operational agencies when applicable.

3.5.5.3. When the PSP is tasked for a mission at other than home station; the PSP will be moved in the cargo configuration (all components configured on the pallet in the cargo configuration with the protective cover in place), unless coordinated with TACC/AE Cell.

3.6. USAFE and PACAF Interface.

3.6.1. PSPs in USAFE and PACAF will be managed by the AMC/AMOG at en route locations as determined by AMC/A33.

3.6.2. Theater AMOCCs will request the use of the PSP through the AMC/AMOG. AMC/AMOG is the granting authority when the PSP is required for use on non-AMC aircraft.

3.6.3. **Command Relationships/Architecture.** AMC will retain ownership of the PSPs to allow for centralized oversight/budgeting and availability for intertheater mission execution.

3.7. Configurations.

3.7.1. The PSPs have been fielded in block increments. The Block 1 initial design supports three litter patients per litter tier. An extension added to the litter tower of the Block 2 design will support four litter patients per tier on the C-17.

Table 3.1. PSP CONFIGURATION WEIGHTS

PSP CONFIGURATION	6 LITTER WEIGHT	8 LITTER WEIGHT
PSP-L	826 lbs	912 lbs
PSP-W	826 lbs	912 lbs
PSP-M	820 lbs	863 lbs
PSP-S	814 lbs	N/A

Table 3.2. PSP PART WEIGHTS

PSP PARTS	WEIGHTS
Extension	17 lbs
Ramp	12 lbs
Spacer	9 lbs

3.7.2. The PSP can be configured in four different configurations. (Refer to [Figure 3.1.](#) through [Figure 3.4.](#) for depiction of Block 1 initial design configurations).

Figure 3.1. PSP-L.

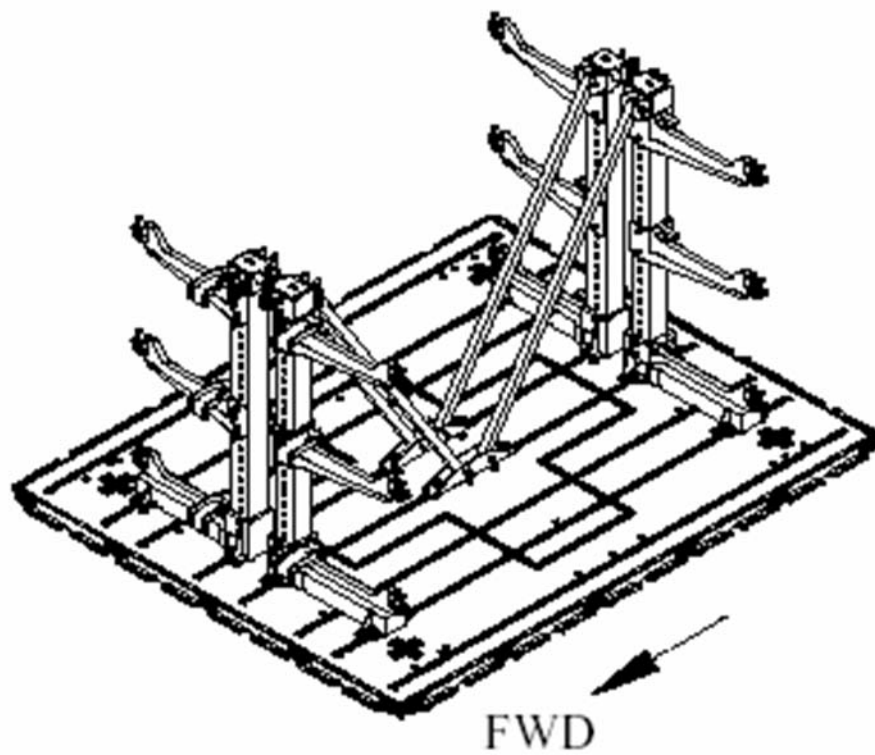


Figure 3.2. PSP-W.

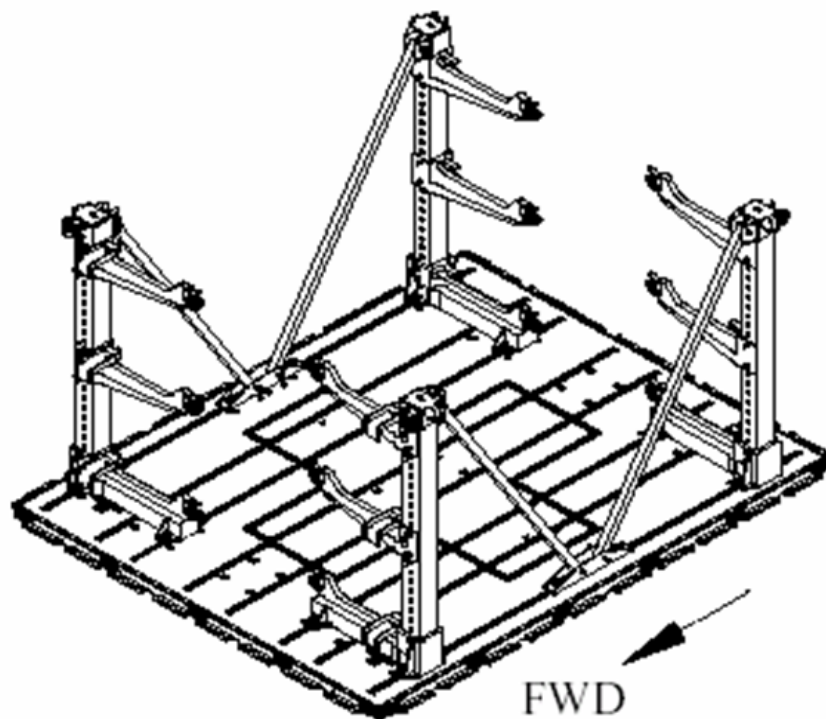


Figure 3.3. PSP-S.

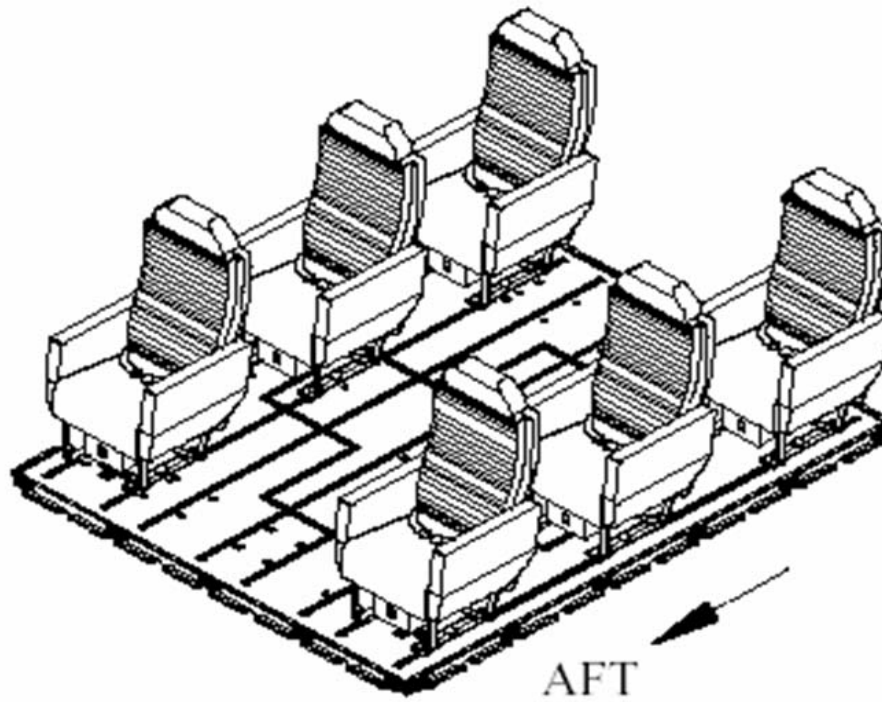
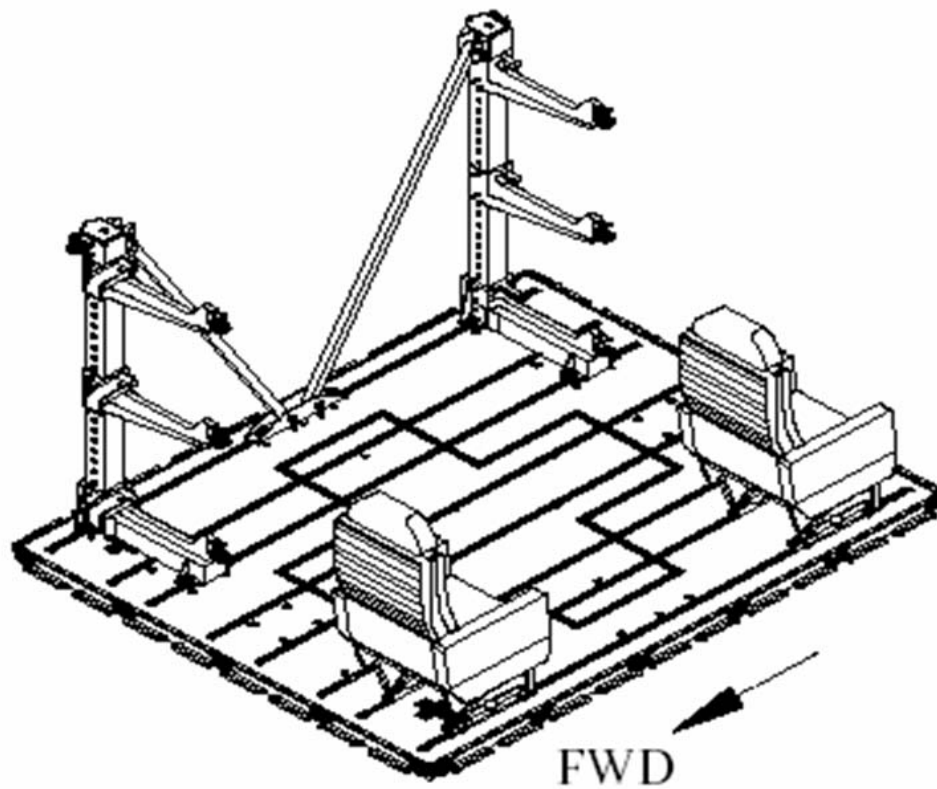


Figure 3.4. PSP-M.



3.8. Stanchion Assembly

NOTE:

3.8.1. Geometric shapes located on the pallet denotes component placement.

3.8.1.1. Red l placement for “M” or “W” configurations

3.8.1.2. Yellow s placement for “M” or “S” configurations

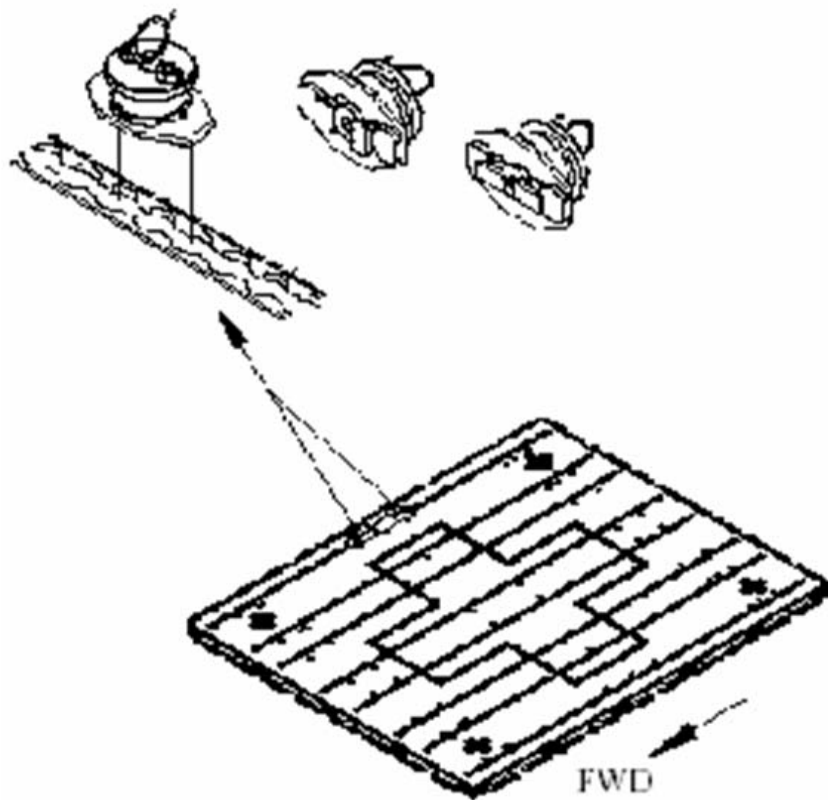
3.8.1.3. Orange n placement for “L” configuration

3.8.2. AECMs will wear gloves during assembly and disassembly of the PSP.

3.8.3. Place baseplate on pallet over the 1st seat track rail. Align both seat track fittings on baseplate with the RED circles on pallet.

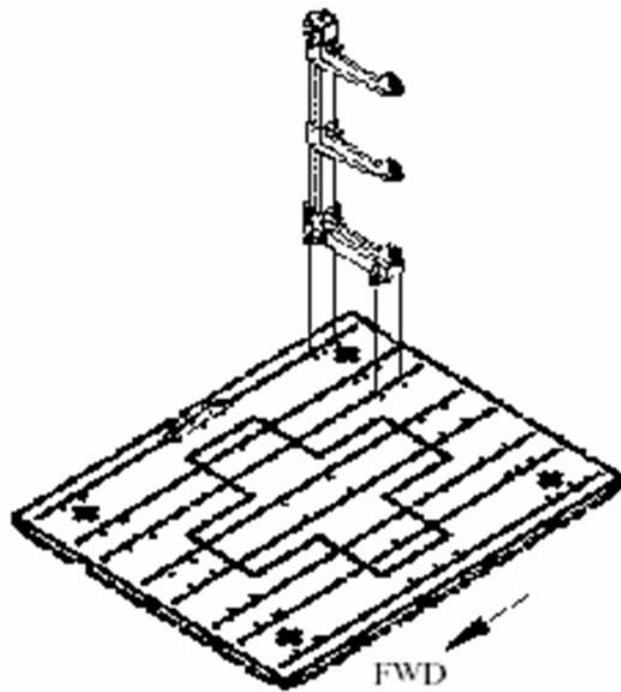
3.8.4. Position both fittings on baseplate to the unlocked position. Lower baseplate onto the first seat track rail. Rotate ring on both fittings 90 degrees so that each fitting locks into the first seat track rail. (Figure 3.5.)

Figure 3.5. Seat Track Fitting



3.8.5. Place AFT stanchion assembly on pallet over the first and third seat track rails (stanchion arms face center of pallet). Align the four seat track fittings on AFT stanchion assembly with the RED circles on pallet. (Figure 3.6.)

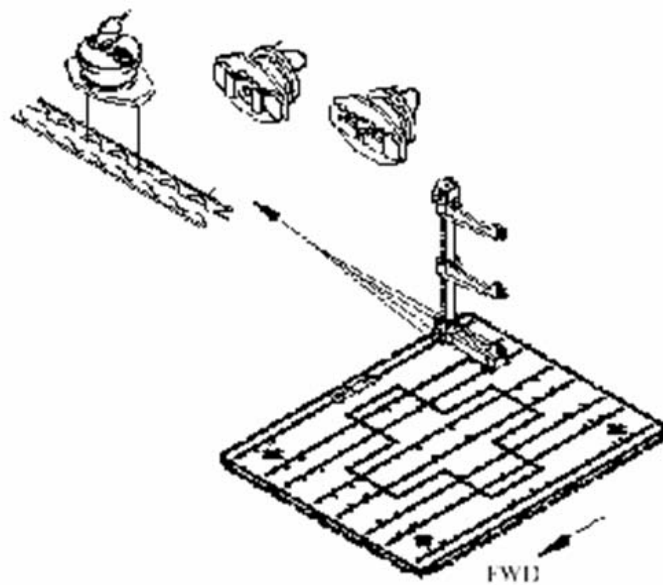
Figure 3.6. AFT Stanchion Assembly



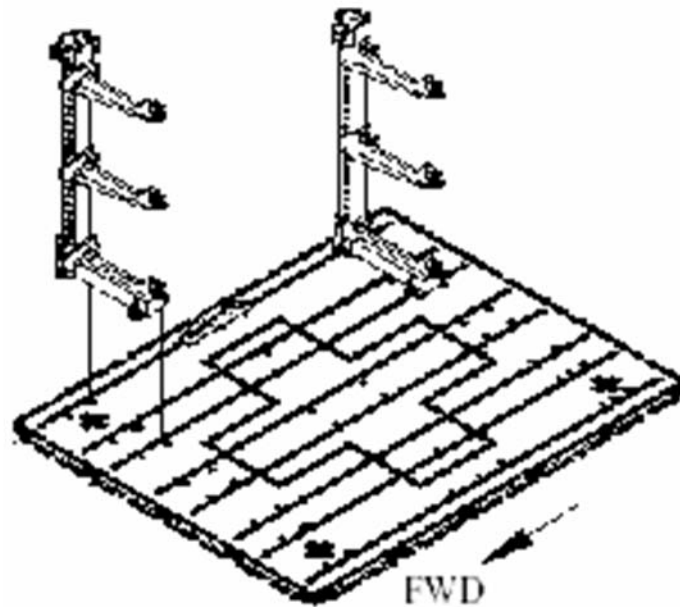
3.8.6. Position the four seat track fittings on AFT stanchion assembly to the unlock position. Lower AFT stanchion assembly onto the first and third seat track rails. ([Figure 3.7.](#))

3.8.7. Rotate ring on each of the four seat track fittings 90 degrees so that each seat track fitting locks into the seat track rails.

Figure 3.7. AFT Stanchion Assembly

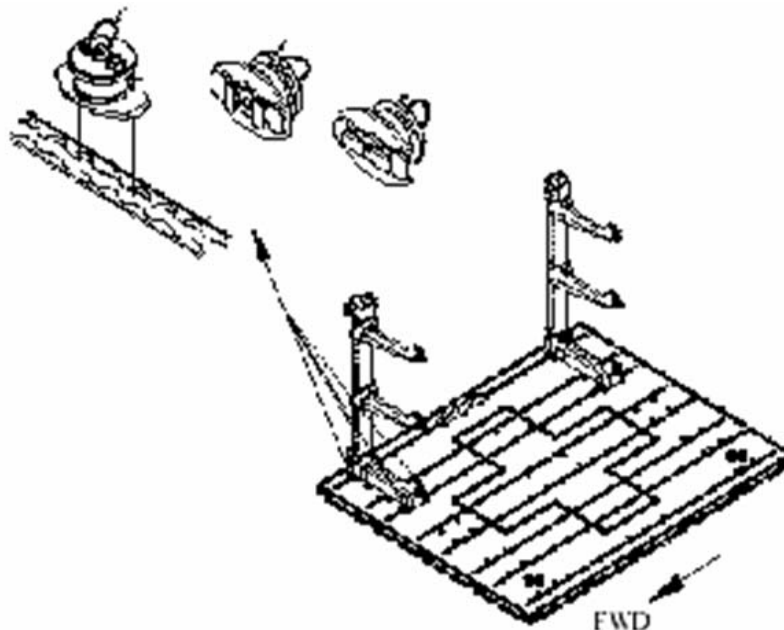


3.8.8. Place FWD stanchion assembly on pallet over the first and third seat track rails (stanchion arms face center of pallet). Align the four seat track fittings on FWD stanchion assembly with the RED circles on pallet. ([Figure 3.8.](#))

Figure 3.8. Forward Stanchion Assembly

3.8.9. Position the four seat track fittings on FWD stanchion assembly to the unlocked position. Lower FWD stanchion assembly onto the first and third seat track rails. (**Figure 3.9.**)

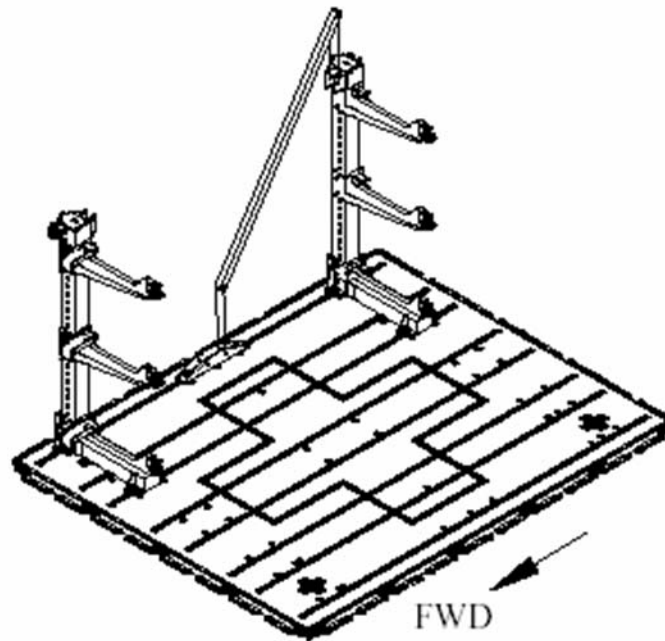
3.8.10. Rotate ring on each of the four seat track fittings 90 degrees so that each seat track fitting locks into the seat track rails.

Figure 3.9. Forward Stanchion Assembly

3.8.11. On the AFT stanchion assembly, install tension bar into tension bar collar so that the holes in tension bar align with holes in channel of tension bar collar. (**Figure 3.10.**)

3.8.12. Install the other end of tension bar into baseplate so that the holes in tension bar align with holes in base plate.

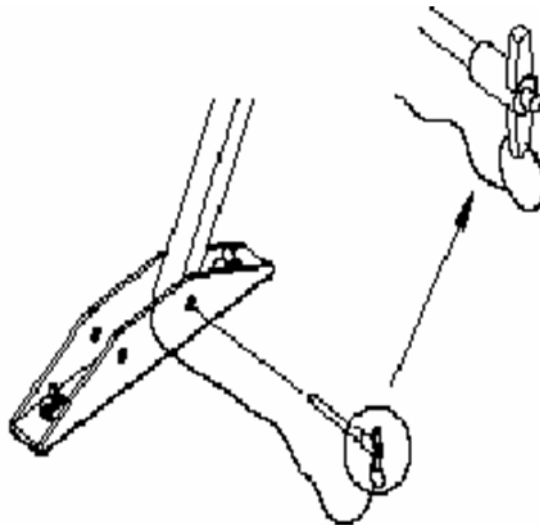
Figure 3.10. Tension Bar Assembly



3.8.13. Secure tension bar to baseplate by depressing button on the ball lock pin and inserting ball lock pin into hole of baseplate. (Figure 3.11.)

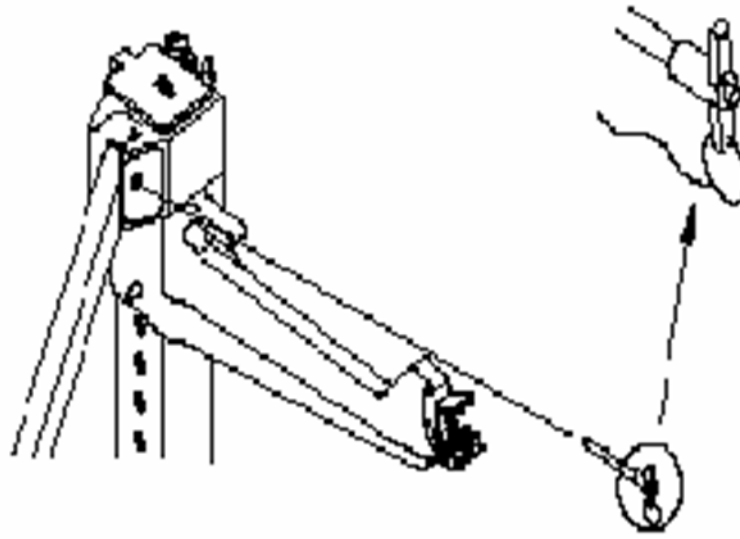
NOTE: When stanchion set assembly is attached to the pallet, ensure that the ball lock pins on the baseplate are inserted on the same side as the stanchion arms.

Figure 3.11. Tension Bar Assembly



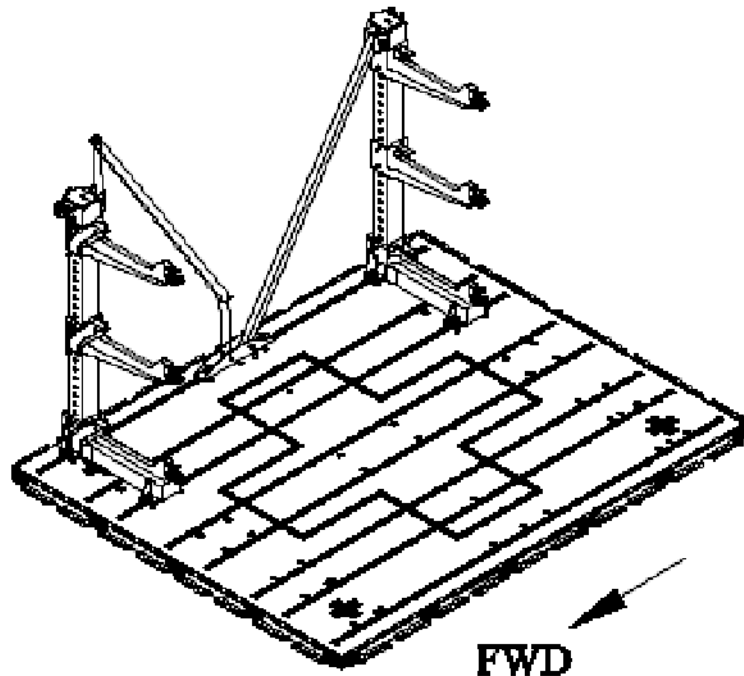
3.8.14. Secure tension bar to collar by depressing button on the ball lock pin and inserting ball lock pin into hole of tension bar collar. (Figure 3.12.)

3.8.15. Ensure that ball lock pin passes completely through tension bar collar and tension bar.

Figure 3.12. Tension Bar Assembly

3.8.16. On forward stanchion assembly, install tension bar into tension bar collar so that the holes in tension bar align with the holes in channel of tension bar collar. (Figure 3.13.)

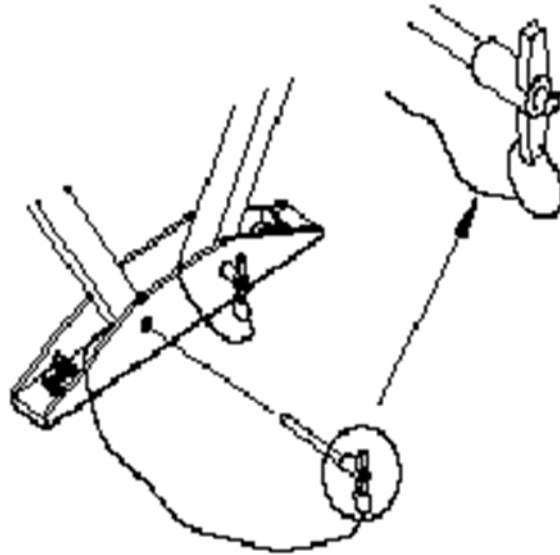
3.8.17. Install the other end of tension bar into baseplate so that the holes in tension bar align with the holes in baseplate.

Figure 3.13. Tension Bar Assembly

3.8.18. Secure tension bar to baseplate by pressing button on the lock pin & inserting ball lock pin into hole of baseplate. Ensure pin passes completely through baseplate & tension bar. (Figure 3.14.)

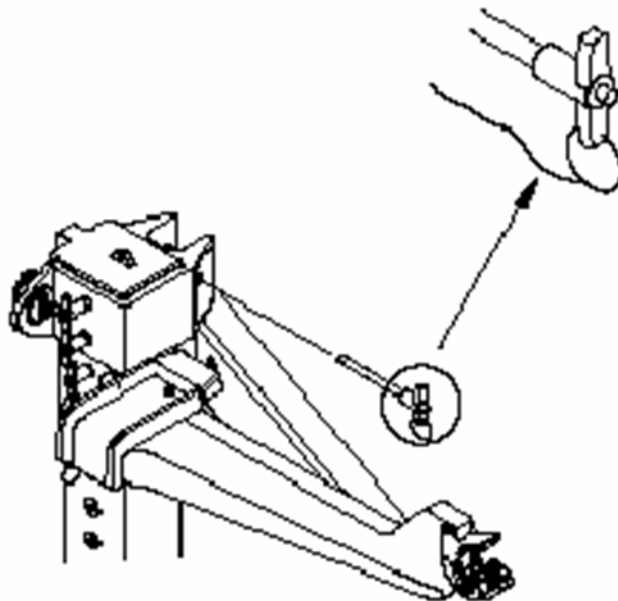
NOTE: When stanchion set assembly is attached to the pallet, ensure that the ball lock pins on the base-plate are inserted on the same side as the stanchion arms.

Figure 3.14. Tension Bar Assembly



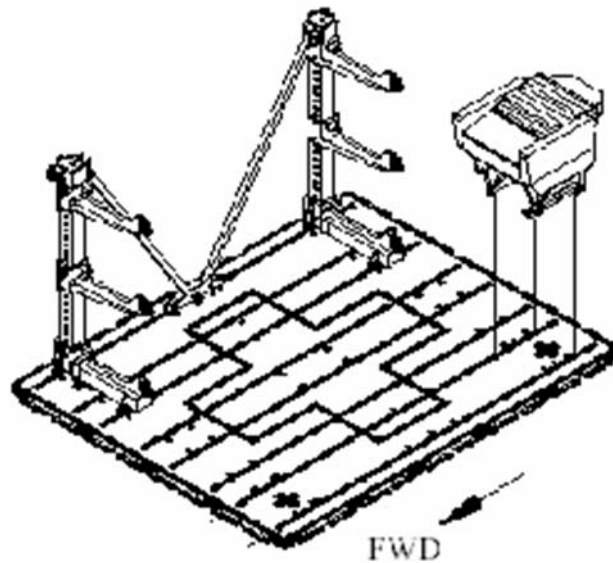
3.8.19. Secure tension bar to tension bar collar by depressing button on the ball lock pin and inserting ball lock pin into hole of tension bar collar. Ensure that ball lock pin passes completely through tension bar collar and tension bar. (Figure 3.15.)

Figure 3.15. Tension Bar Assembly



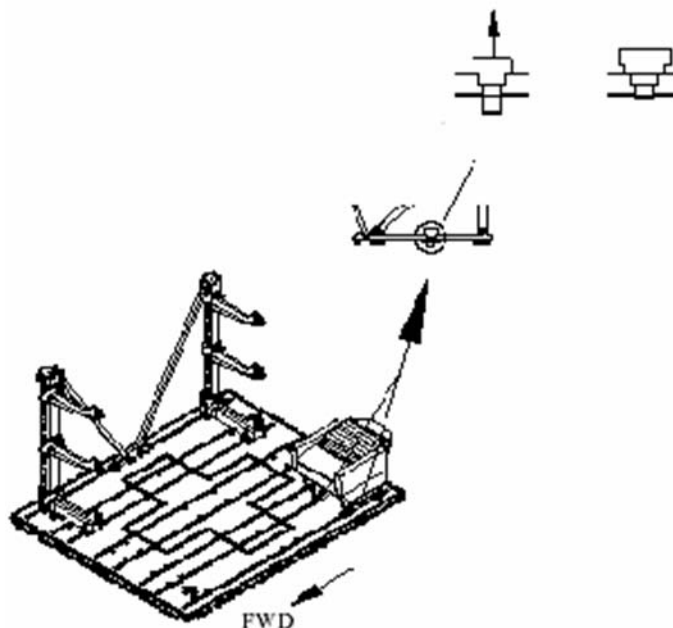
3.9. Seat Assembly.

3.9.1. Place seat on pallet over the 7th and 8th seat track rails. Align seat track fitting knobs on seat with painted YELLOW triangles on pallet. (Figure 3.16.)

Figure 3.16. Seat Assembly

3.9.2. Position seat track fitting knobs on seat to the unlocked position by pulling up on both seat track fitting knobs and rotating 90 degrees. (Figure 3.17.)

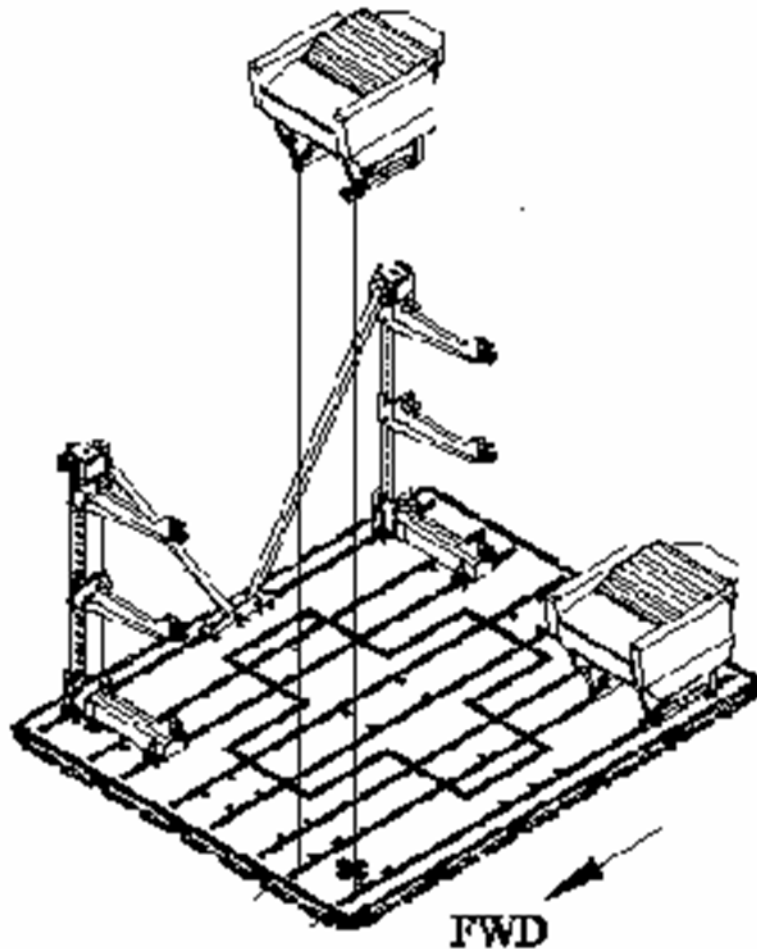
3.9.3. Lower seat onto the seventh and eighth seat track rails. Rotate both seat track fittings knobs 90 degrees and move seat FWD and AFT gently until each track fitting locks in seat track rail.

Figure 3.17. Seat Assembly

3.9.4. Place seat on pallet over the 7th and 8th seat track rails. (Figure 3.18.)

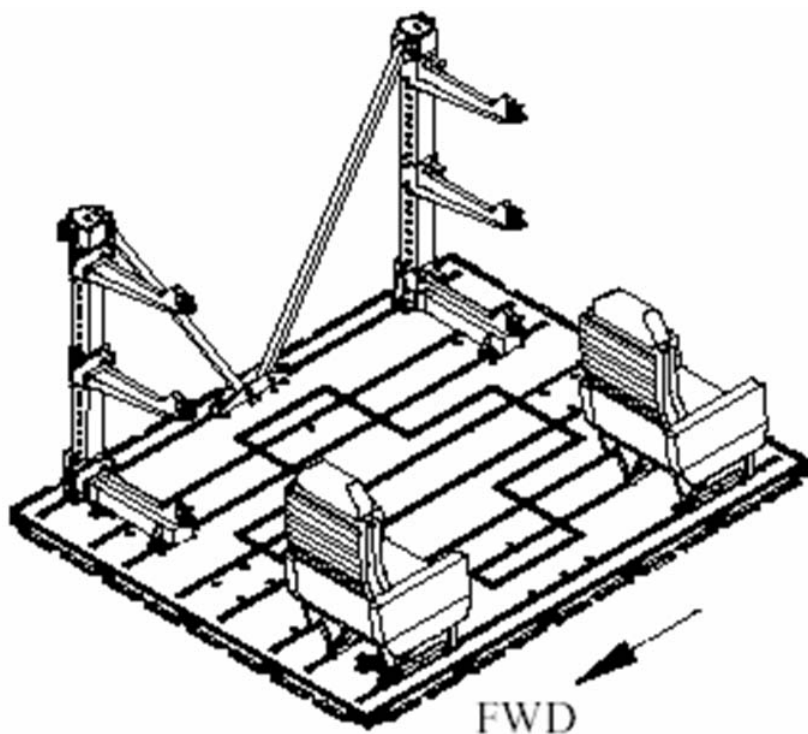
3.9.5. Align seat track fitting knobs on seat with painted YELLOW triangles on pallet.

Figure 3.18. Seat Assembly



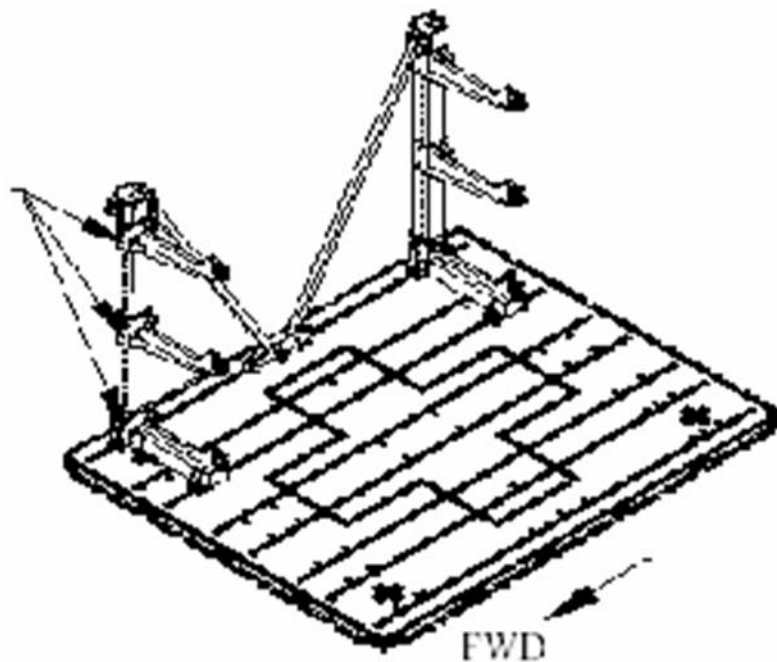
3.9.6. A 3rd seat may be placed in the PSP-M configuration between the two seats shown. (Figure 3.19.)

NOTE: Ensure when seats are broke over they do not extend beyond the pallets edge. This will cause problems during off load.

Figure 3.19. Seat Assembly**3.10. Litter Installation.**

3.10.1. Remove litter catch from the stanchion arm on the FWD stanchion assembly by depressing the button on the ball lock pin & removing ball lock pin from the litter catch.

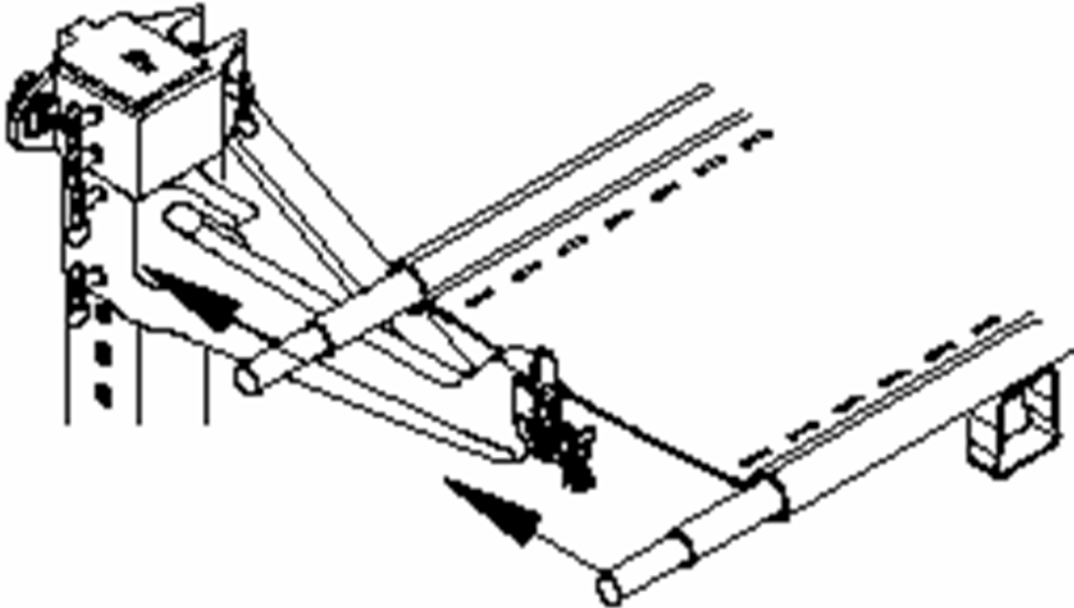
3.10.2. Set litter catch aside.

Figure 3.20. Litter Installation

3.10.3. Slide one end of litter handle under tongue of stanchion arm.

3.10.4. Slide handle on other end of litter under tongue of stanchion arm. (Figure 3.21.)

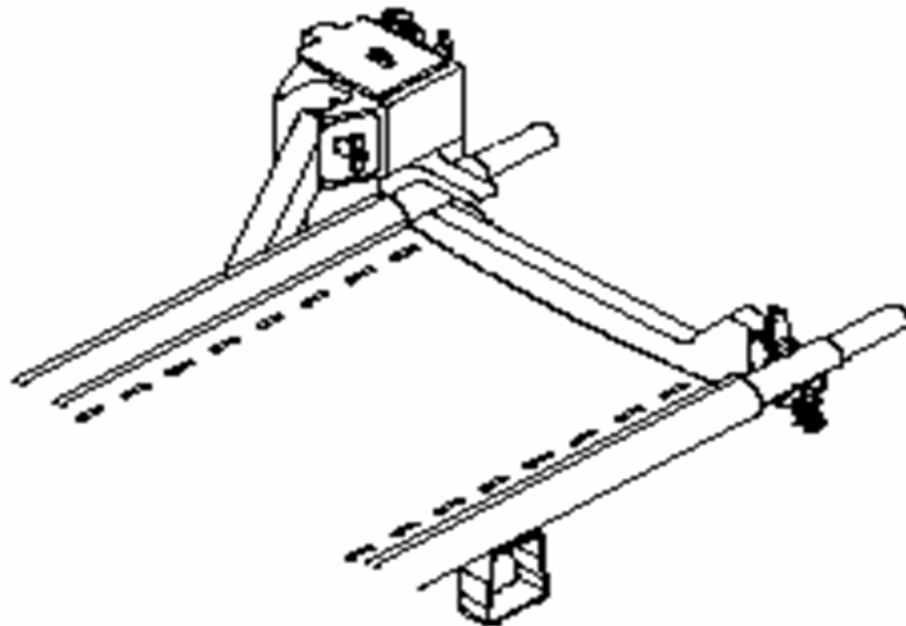
Figure 3.21. Litter Installation



3.10.5. Place litter handle in litter bracket.

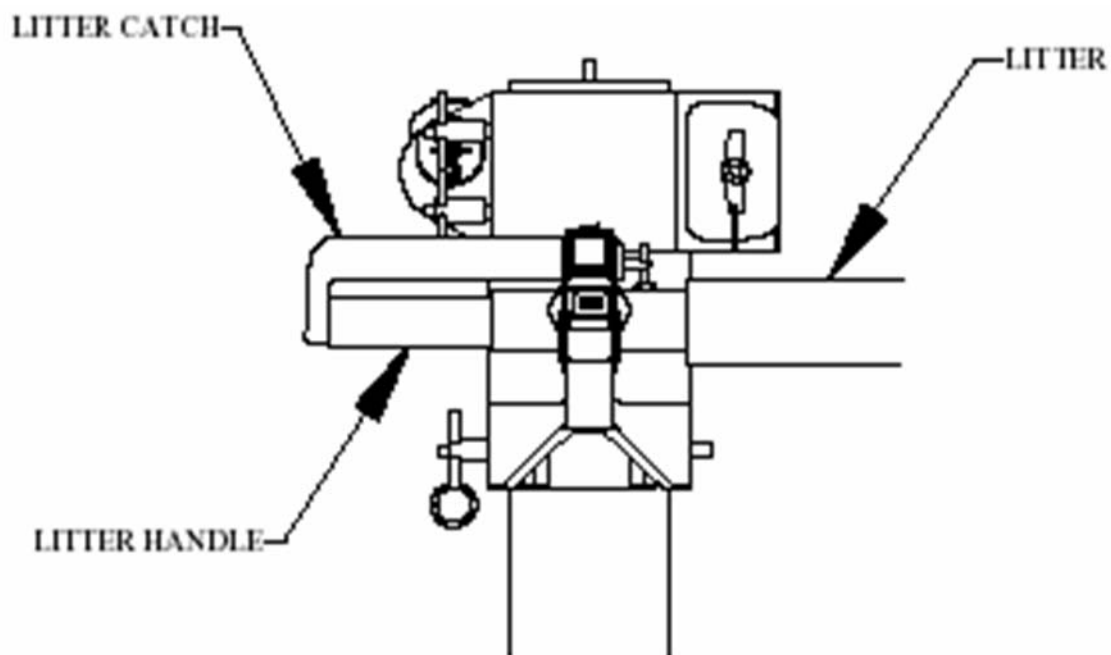
3.10.6. Place handle on other end of litter in litter bracket. (Figure 3.22.)

Figure 3.22. Litter Installation



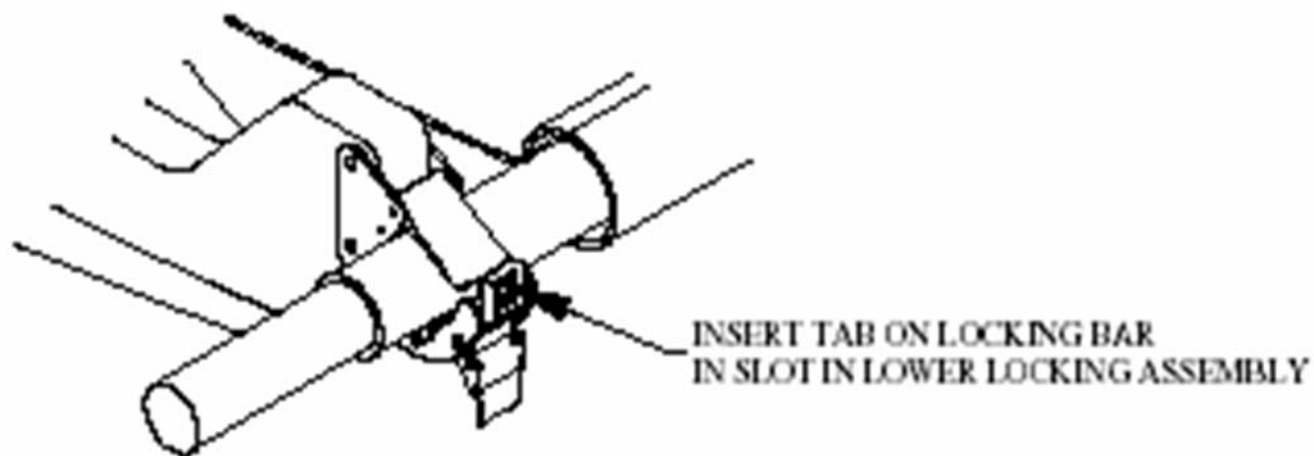
3.10.7. Reinstall litter catch on tongue of stanchion arm (FWD stanchion assembly).

3.10.8. Ensure the litter handle on each litter fits against litter catch. (Figure 3.23.)

Figure 3.23. Litter Installation

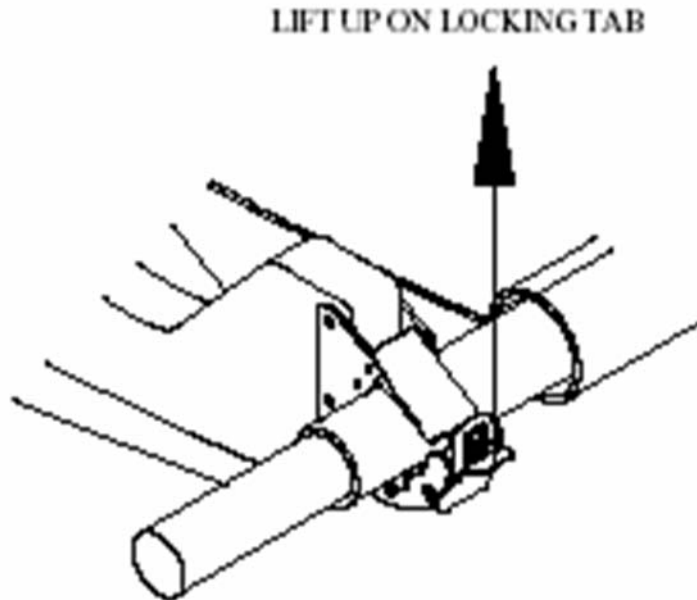
3.10.9. Insert tab of locking bar in slot of lower locking assembly on both the FWD and AFT litter brackets that contain the litter. (Figure 3.24.)

3.10.10. Ensure a snug fit on litter handle.

Figure 3.24. Litter Installation

3.10.11. Lift up locking tab to lock litter bracket in place on litter handle. Lock litter bracket on both the FWD and AFT litter brackets. (Figure 3.25.)

3.10.12. Ensure snug fit on litter handle.

Figure 3.25. Litter Installation**3.11. Enplaning and Deplaning.**

3.11.1. Patients and equipment will not be enplaned or deplaned on the PSP.

3.11.2. Enplane all litter patients first. Ensure seat backs are folded down during litter enplaning/deplaning, unless doing so would impede loading or egress of patients.

3.11.3. Seats may be completely removed to facilitate litter/equipment loading.

3.11.4. Accomplish enplaning/deplaning of ambulatory/litter patients in the most expeditious, safe manner. Full consideration must be given to the availability of materiel handling equipment (MHE) and ground support personnel.

3.11.5. The KC-135/KC-10/C-17 requires a roller system to roll the PSP on and off the aircraft. These roller systems reduce free walking space on the aircraft and present tripping hazards in many areas.

WARNING: Every effort should be made not to enplane/deplane patients across rollers.

3.11.6. PSP ramps, extensions, and spacers should be used when available to mitigate trip hazards created by uneven surfaces between the PSP(s) and/or the C-17 integral stanchions. Spacers are designed to cover the gap between two pallets. The PSP ramps and extensions attach either to the pallet or to each other to provide a smooth transition from the pallet to the aircraft floor. **EXCEPTION:** On the KC-10, location of aircraft seats may prevent use of PSP ramps immediately forward of the PSP to cover exposed rollers. In addition, PSP spacer does not fit between pallets in Configuration I.

3.11.7. Once secured in the roller system, secure PSPs with a cargo tie down strap to the roller system rails to prevent forward-aft pallet movement during flight.

WARNING: Do not use seat track/stanchion fitting ring(s) to secure any equipment.

3.11.8. The stanchion arms are designed for non-sequential enplaning/deplaning of individual litter patients.

3.12. Patient Care Procedures.

3.12.1. The AECM should be cognizant of trip hazards (space between pallets, drop off on sides of pallet, and cargo rollers) and shall provide safety briefings to patients, passengers, attendants and litter bearers as needed.

NOTE: If patient requirements dictate and additional work space is needed, the PSP may be configured with only one litter tower. In addition, the second tower may be installed after the patient with increased care requirements is enplaned.

WARNING: The AECM shall instruct seated patients/attendants on the operation of the integral food tray. Improper handling of this tray may result in injury.

WARNING: Never place a litter on the bottom litter tier without securing a litter above it.

WARNING: The AECM shall be mindful of the potential strike hazard unoccupied cantilever arms present. To eliminate the hazard: Remove cantilever arms and store in a secure location on the aircraft, or place an empty litter in the next position. If a secure location is unavailable, cover empty cantilever arms with blankets and secure with litter straps.

3.13. Maintenance.

3.13.1. Keep pallets clean to protect equipment, prevent the spread of contamination, and increase the serviceability of the unit.

3.13.2. Cleaning of pallets shall be performed when necessary and cleaning shall be compatible with the type of material to be cleaned and the nature of the substance to be removed. In most cases, this should be mild soap and water.

3.13.3. Keep seat track clear of any debris that will obstruct the lock engagement.

3.14. Disassembly and Storage.

WARNING: When disassembling litter stanchions, one person should support the weight of the stanchion as the second person unlocks and disengages the stanchion from the seat track in the pallet floor. Failure to support the weight of the stanchion could result in injury.

3.14.1. The stanchion assembly is stored in the horizontal position and secured to the pallet to reduce the PSP system cubic volume during transport and storage.

3.15. PSP Inventory.

1. 463L Pallet intact and functional
2. Brackets available and operable
3. Ramps available and operable
4. Spacers available and operable
5. Extenders available and operable
6. Litter stanchions available and functional
7. Seats available, clean, and operable

** Annotate inspection date and any discrepancies on the AFTO IMT 244.

3.16. PSP Spare Parts Repair Kit.

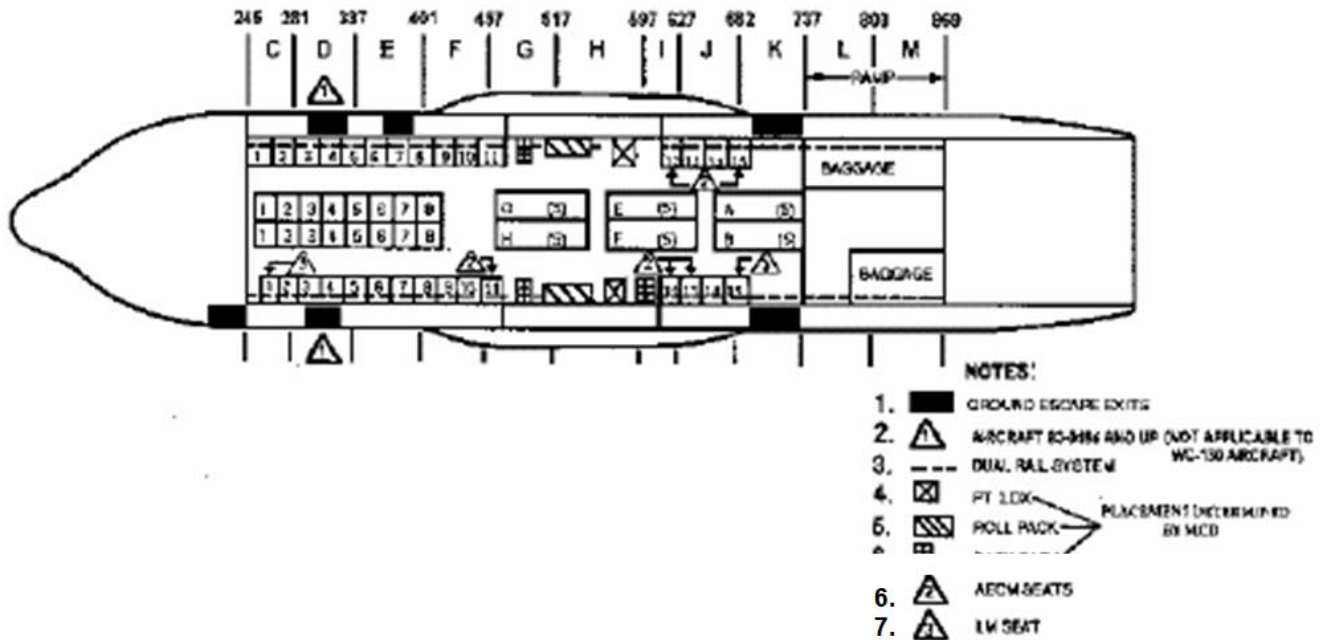
1. 4 wire bolts
2. 4 machine bolts
3. 2 bracket assemblies (litter clamps)
4. 4 nuts
5. 8 washers
6. 2 Pin Assemblies 7/16 X 5 inch
7. 2 Pin Assemblies 7/16 X 3 inch
8. 2 Pin Assemblies 3/16 X 2 inch
9. 1 Quick-Disconnect Fitting (A7100)
10. 1 container to contain the above

Chapter 4

C-130

C-130 E, H, J CONFIGURATIONS

4.1. AE-1.

**NOTES:**

1. Normally provides thirty litter spaces, thirty-nine patient/passenger seats, and seven crew seats--seat belts on 20-inch centers. The number of Aeromedical Evacuation Crew Members (AECM) governs the number of seats available.
2. Seats 1 and 2-left will be stowed when they are not specifically requested for the mission.
3. Cargo floor rollers will be removed and secured under center aisle and outboard seats (no more than two high). Stow ramp rollers in the same location or on the ramp on the side opposite of the latrine facility.
4. AE equipment will be positioned as required by the Medical Crew Director (MCD). Patient therapeutic liquid oxygen (PTLOX) will not be positioned adjacent to any hydraulic reservoir.
5. Time to configure with two persons is one and one-half hours.

Table 4.1. C-130 AIRCRAFT LSE CONFIGURATION

Minimum Required Equipment	Routine	Contingency
Mask, 358-series w/goggles	4	4
Mask, firefighter, smoke (see note 1)	2	2
Emergency Escape Breathing Device (EEBD) or Protective Breathing Equipment (PBE) (see note 2)	6	6
Emergency Passenger Oxygen System (EPOS) <i>PAX use</i> (see note 3)	40	60
Protective Clothing Kit (PCK)	1	1
Goggle, Flash Blindness, MIL-G-635	4	4
Harness, Restraint, PCU-17/P	3	3
Parachute, BA-18M/BA-22 (see note 4)	6	6
Life Raft, 20-Person (F-2B)	4	4
Life Pres, Adult-Child (A/C) (see note 5)	40	60
Life Pres, LPU-6/P (Infant)	4	4
Life Pres, LPU-2/P or -10/P (see note 6)	6	6
Kit, Survival, ML-4 (see note 4, 7)	6	6
Survival Vest (see note 4, 8)	6	6
Body Armor	0	6
Suit, Anti-Exposure, CWU-16/P (see note 4, 9)	6	6
Kit, Passenger Demonstration	1	1

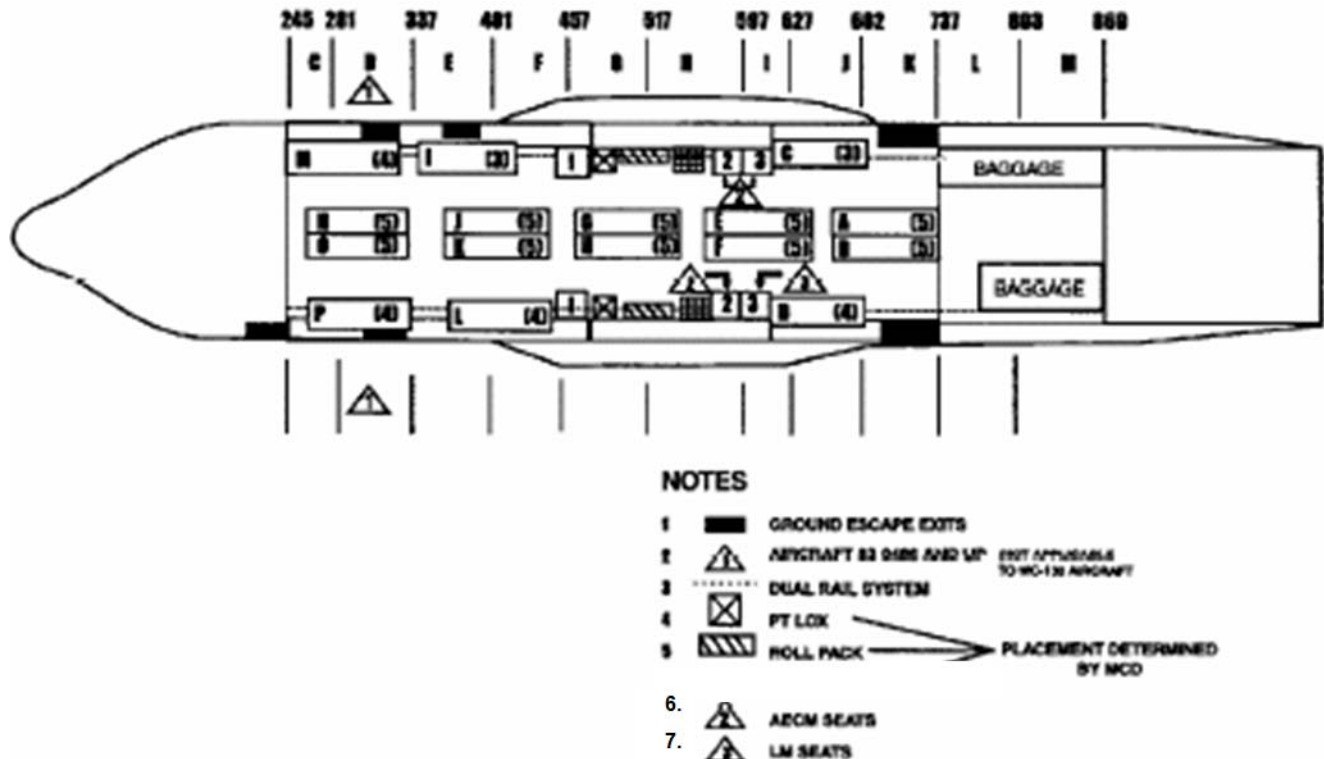
NOTES:

1. P/N 358-1506 series oxygen mask with goggles attached is the preferred smoke and fume protection for aircrew personnel. Firefighters smoke masks may be used until 358-series oxygen masks and goggles are available. Smoke masks will not be placed on the flight deck.
2. Four EEBDs or PBEs will be placed on the flight deck and two in the cargo compartment.
3. EPOS is the preferred passenger oxygen, smoke, and fume protection. POKs may be used as a substitute until EPOS is available. As a minimum, each aircraft will have one EPOS per passenger regardless of planned flight altitude. Preposition additional EPOS or POKs for increased scheduled passenger loads. Mixing of EPOS and POKs on the same aircraft is not authorized. If POKs are used, provide one POK for each occupant IAW AFI 11-202, Volume 3 (formerly AFI 11-206). EPOS or POKs are not required when flying local training missions and patients/passengers are not aboard aircraft.
4. Parachutes, ML-4 survival kits, and survival vests are required on all missions. Exception: Refer to note 7 for ML-4 survival kits. A minimum of one parachute, survival kit and vest, and

anti-exposure suit per primary flight crewmember will be prepositioned aboard the aircraft during increased scheduled crew loads. Place additional parachutes for airdrop missions, as required.

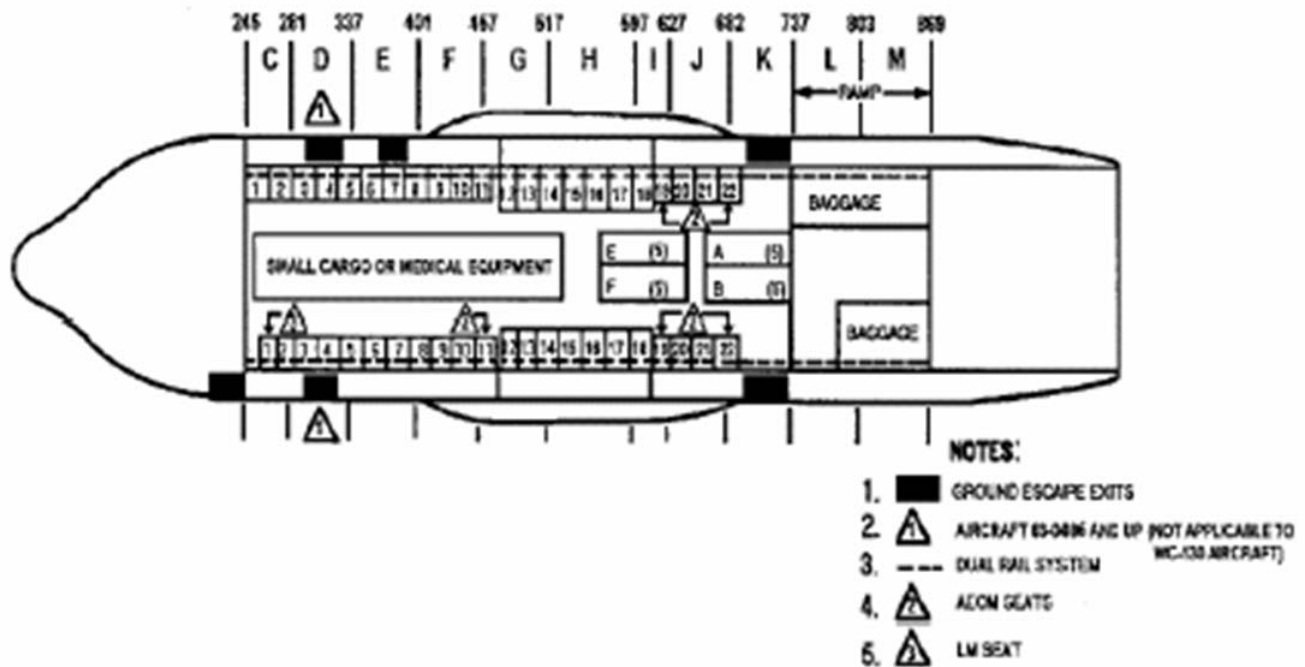
5. The Adult/Child LPU is the preferred LPU. Preposition additional LPUs to meet increased scheduled PAX loads. As a minimum, each aircraft will have one LPU for each passenger. LPU-2/P or -10/P LPUs are a suitable substitute for the Adult/Child LPU for passenger use until Adult/Child LPUs are available. If LPU-2/P or -10/P LPUs are used, PIC or designated aircrew representative will ensure these LPUs are pre-fitted to patients/passengers prior to take off.
6. LPU-2/P or -10/P LPUs are required to integrate with LSE and are designed for use by aircrew personnel. Adult/Child LPUs are not compatible for use with parachutes and survival vests and must not be used as a substitute for these LPUs.
7. Only required on designated overwater flights. Quantities will match quantities of parachutes aboard aircraft.
8. Survival vests are required when parachutes are prepositioned aboard aircraft for bailout. Survival vests provide crewmembers the necessary survival items while waiting for rescue or return to duty. Quantities will match quantities of parachutes aboard aircraft.
9. Only required on designated overwater flights.

4.2. AE-2.

**NOTES:**

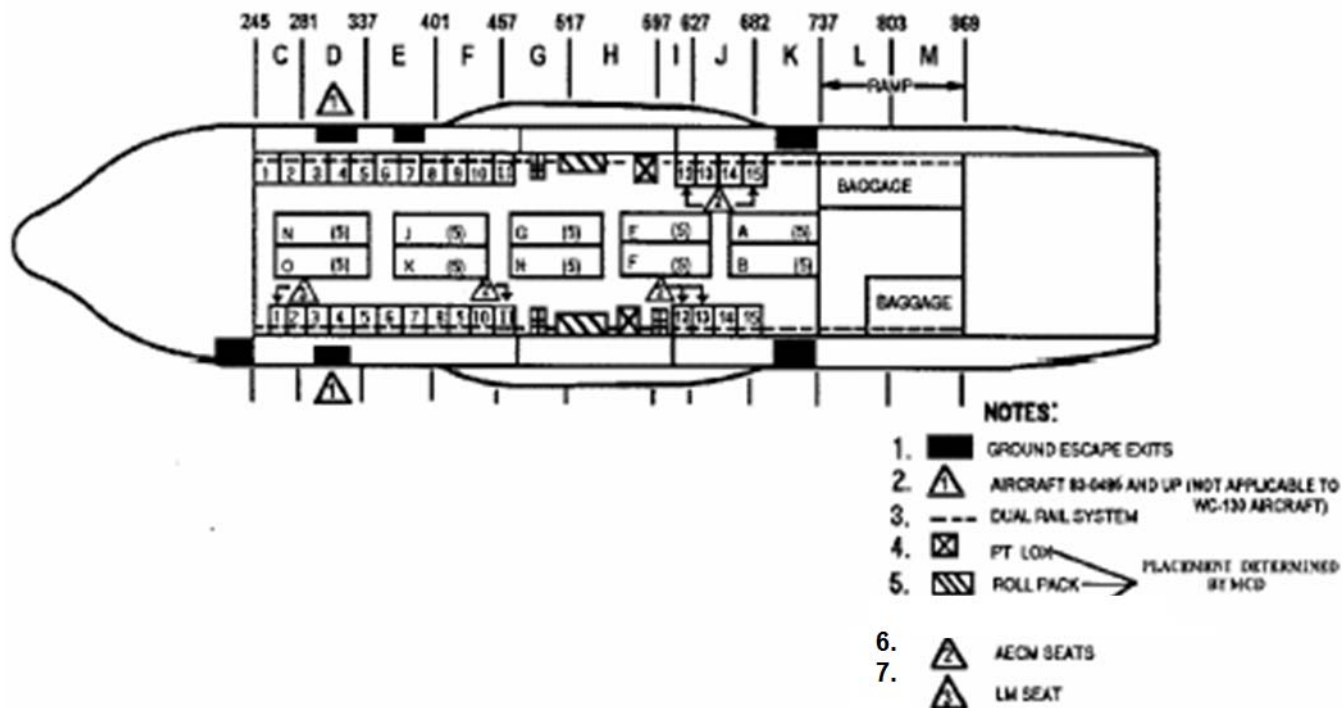
1. Normally provides 72 litter spaces and six crew seats. The number of AECMs governs the number of litters available.
2. Cargo floor roller conveyors are stowed on top of outboard rails (no more than two high). Ramp rollers are stowed on the ramp on the side opposite of the latrine facility.
3. Wheel well seats will be installed and hooked up to the seat-back support bar. AECMs will complete final seat installation. **NOTE:** Paratroop door observer seat (some airplanes) must be removed from the doors to allow opening/closing of the doors when the paratroop door litter stanchions are installed.
4. AE equipment will be positioned as required by the Medical Crew Director (MCD). PTLOX will not be positioned adjacent to any hydraulic reservoir.
5. The average time to configure with two persons is two hours.

4.3. AE-3.

**NOTES:**

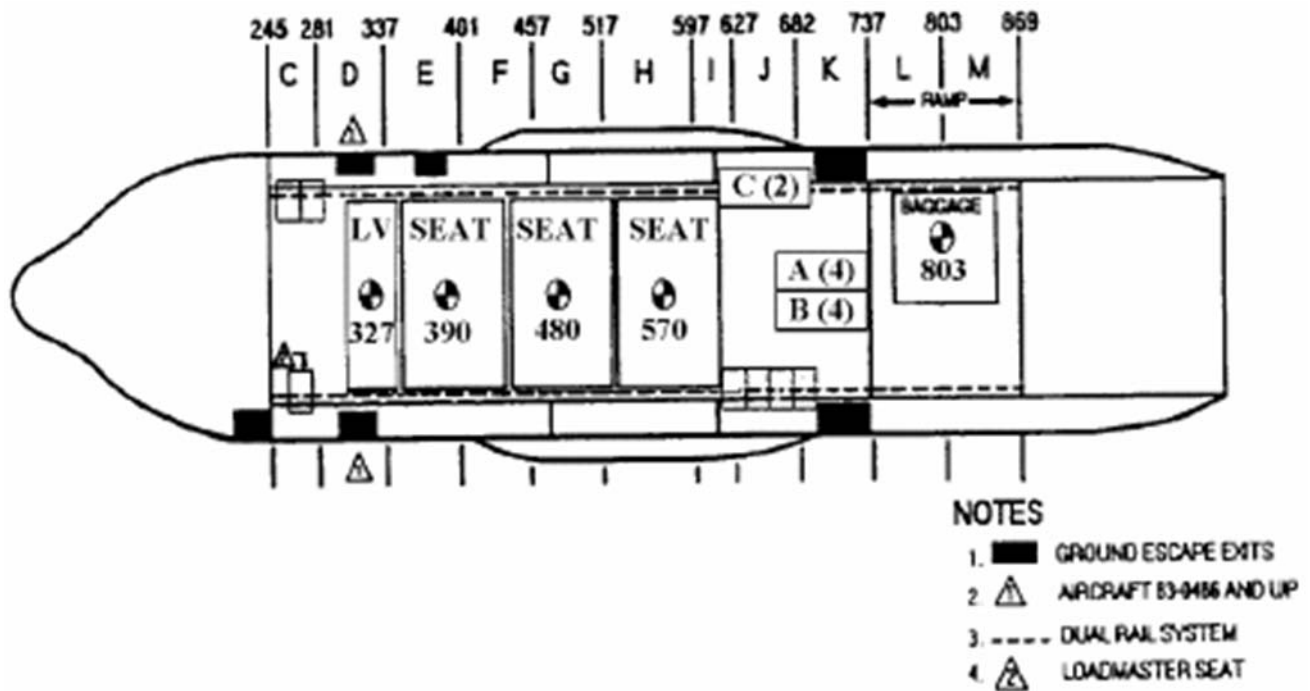
1. Normally provides 20 litter spaces, 38 patient/passenger seats, and six crew seats -- seat belts on 20-inch centers. The number of AECMs governs the number of seats available.
2. Cargo floor roller conveyors are stowed on top of outboard rails (no more than two high). Ramp rollers are stowed on the ramp on the side opposite of the latrine facility.
3. AE equipment will be positioned as required by the Medical Crew Director (MCD). PTLOX will not be positioned adjacent to any hydraulic reservoir.
4. The average time to configure with two persons is one and one-half hours.

4.4. AE-4.

**NOTES:**

1. This is the combat/contingency configuration and normally provides 50 litter spaces, 24 patient/passenger seats, and six crew seats. The number of AECMs governs the number of seats available.
2. Cargo floor roller conveyors are stowed on top of outboard rails (no more than two high). Ramp rollers are stowed on the ramp on the side opposite of the latrine facility.
3. AE equipment will be positioned as required by the Medical Crew Director (MCD). PTLOX will not be positioned adjacent to any hydraulic reservoir.
4. The average time to configure with two persons is two hours.

4.5. AE-5.

**NOTES:**

1. This is a variation to the AE-4 combat/contingency configuration and provides 10 litter spaces, 24 palletized trip seats, and 7 sidewall seats. The number of AECMs governs the number of seats available.
2. Cargo floor roller conveyors not used and ramp rollers are stowed on top of outboard rails forward of flight station (FS) 617.
3. AE equipment will be positioned as required by the Medical Crew Director (MCD). PTLOX will not be positioned adjacent to any hydraulic reservoir.
4. The average time to configure with one person is one hour.

C-130J**Table 4.2. C-130J AIRCRAFT LSE CONFIGURATION**

Minimum Required Equipment	Routine	Contingency/ Deployment
Body Armor	0	5
Emergency Escape Breathing Device (EEBD) or Protective Breathing Equipment (PBE) (Note 1)	5	5
Emergency Passenger Oxygen System (EPOS) (Note 2)	40	128- C-130J-30 92 - C-130J
Harness, Restraint, PCU-17/P	3	3
Kit, Passenger Demonstration (Note 5)	1	1
Kit, Survival, ML-4 (Note 6)	0	5
Life Preserver, Adult-Child (A/C) (Note 3)	40	128 - C-130J-30 92 - C-130J
Life Preserver, LPU-6/P (Infant cot)	4	4
Life Preserver, LPU-10/P (Notes 3 and 6)	5	5
Mask, 358-series w/goggles	5	5
Protective Clothing Kit (PCK)	1	1
Parachute, BA-18M/BA-22 (Note 6)	0	5
Raft, 46-Man	3	3
Survival Vest	0	5
Suit, Anti-Exposure, CWU-16/P	5	5

NOTES:

1. Three EEBDs or PBEs will be placed on the flight deck and two in the cargo compartment.
2. EPOS is the primary passenger oxygen, smoke, and fume protection. As a minimum, each aircraft will have 1 EPOS per passenger regardless of planned flight altitude. Preposition additional EPOS for increased scheduled passenger loads.
3. The Adult/Child LPU is the primary passenger LPU. Preposition additional LPUs to meet increased scheduled passenger loads.
4. LPU-10/P LPUs are required to integrate with LSE and are designed for aircrew use. Adult/Child LPUs are not compatible for use with parachutes and survival vests and shall not be used as a substitute for these LPUs.
5. Life support demonstration kit will include demonstration life support equipment mirroring all onboard individually issued passenger equipment (i.e., LPUs, EPOS, oxygen masks, etc.). Do not include LPU-6/P (infant cot) as part of demonstration kit.
6. One parachute and survival kit per primary flight crewmember will be pre-positioned aboard the aircraft during all routine and contingency airdrops.

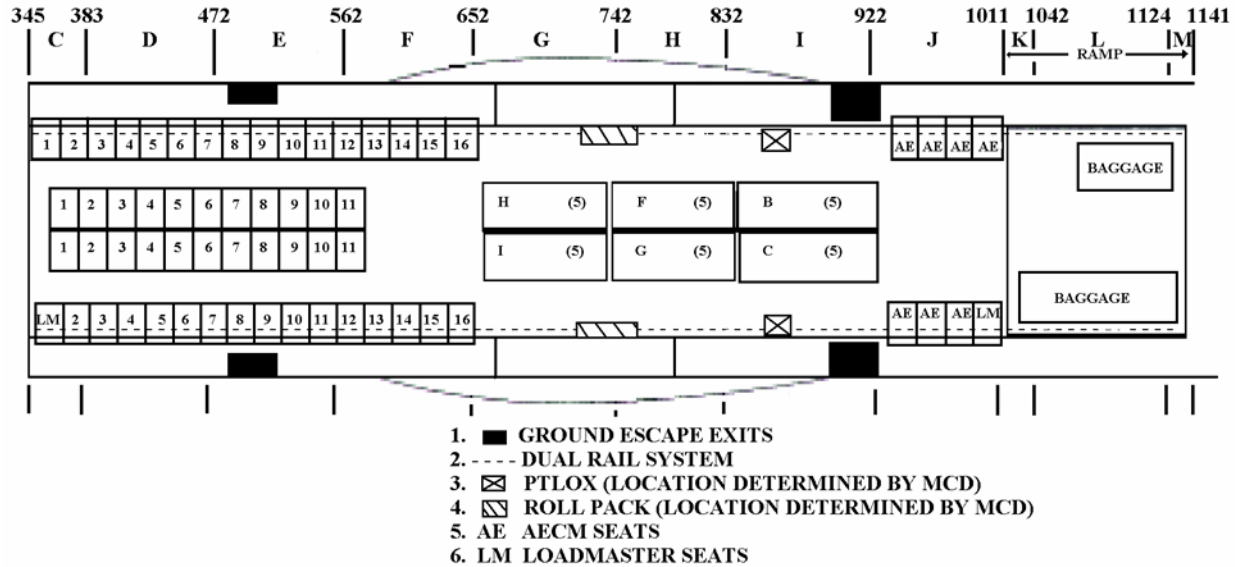
Table 4.3. C-130J REQUIRED EMERGENCY LSE LOCATION

Equipment	Location
Anti-exposure suit (Note 1)	As required.
Emergency Escape Breathing Device (EEBD) or Protective Breathing Equipment (PBE).	Three in flight station; two in cargo compartment.
Emergency Passenger Oxygen System (EPOS) (Note 1)	As required.
Life preserver, LPU-2/P or -10/P (Note 1)	As required.
Life preserver, Adult/Child (A/C) (Note 1)	As required.
Life preserver, LPU-6/P (infant cot) (Note 1)	As required.
Life support equipment demo kit (Note 1)	As required.
Oxygen Mask, 358 series with goggles	Four on the flight deck. Two in the cargo compartment attached to oxygen bottles C-130J LS 345 and LS 817; (S) FS 245 and 617 if used in place of firefighter's smoke mask.
Restraint harness, PCU-17/P, with safety strap, HBU-6/P	One on flight deck and 2 stowed in cargo compartment.
Protective Clothing Kit (PCK) (Note 1)	As required.

NOTE: 1. Life support equipment will always be placed in overhead racks (if installed), unless stowed elsewhere for airplane center of gravity (CG) limitations for all airplanes. Overhead racks' primary purpose is life support equipment stowage. Other items of equipment may be placed in overhead racks provided the items do not interfere with life support equipment and can be easily secured. Under no circumstances will oil, hydraulic fluid, or other liquids be placed in overhead racks when life support equipment is stowed in the racks. WC-130J life support equipment is normally floor-loaded behind the ARWO pallet.

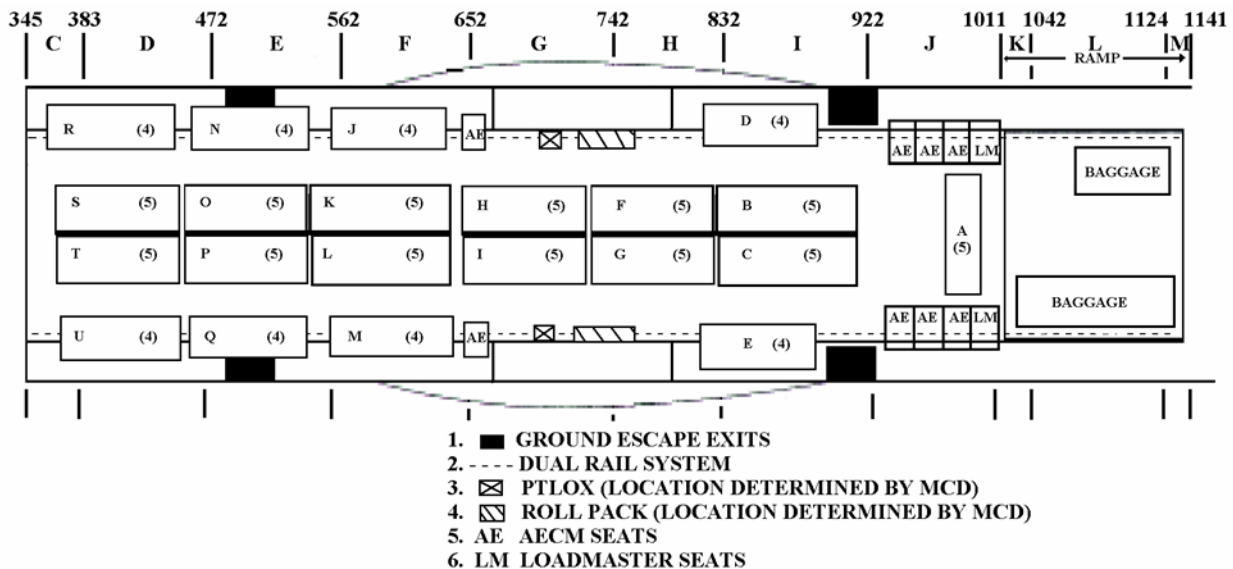
C-130J-30 CONFIGURATIONS

4.6. AE-1 (C-130J-30).

**NOTES:**

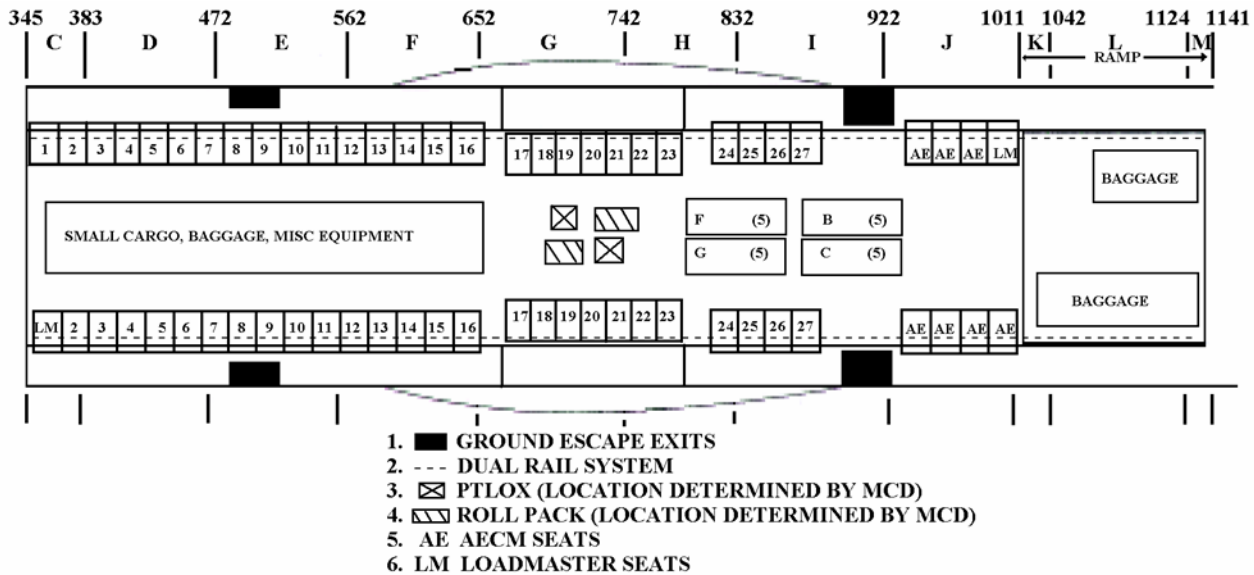
1. Normally provides 30 litter spaces, 53 patient/passenger seats, and 9 crew seats (seat belts on 20-inch centers). The number of AECMs governs seat availability.
2. Seats 1 and 2-left will be stowed when they are not specifically requested for the mission.
3. Floor roller conveyors will be stowed. Stow ramp roller conveyors if not required for a baggage pallet.
4. AE equipment will be positioned as required by the Medical Crew Director (MCD). PTLOX will not be positioned adjacent to any hydraulic reservoir or component.
5. The average time to configure with two persons is two hours.

4.7. AE-2 (C-130J-30).

**NOTES:**

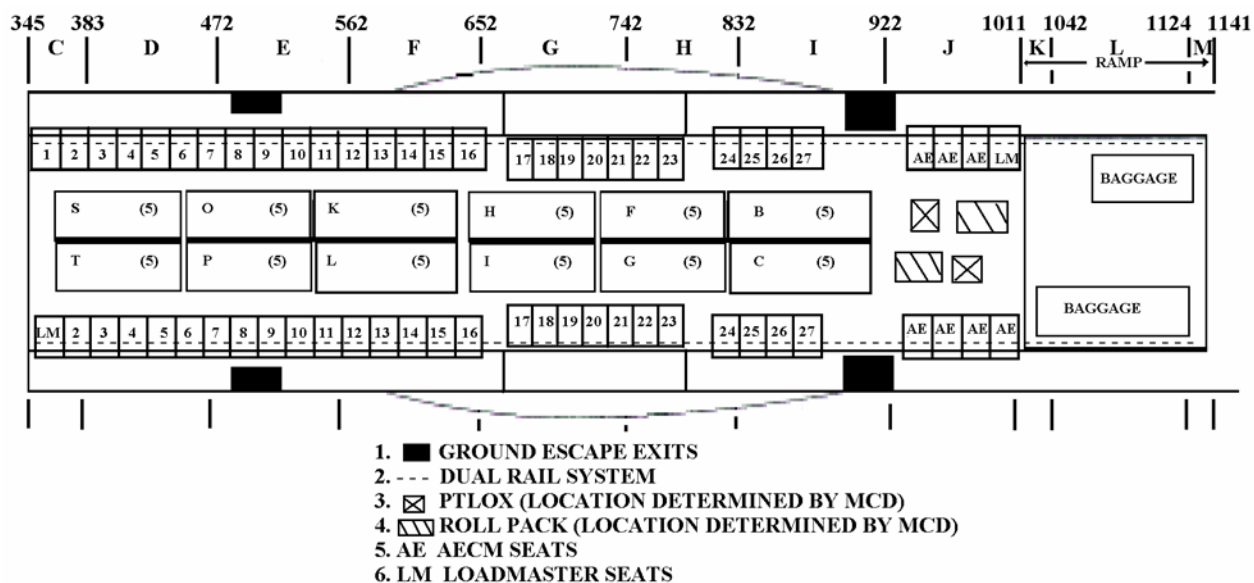
1. Normally provides 97 litter spaces and ten crew seats. The number of AECMs governs the number of litters available. Additional aircraft equipment may reduce the number of available litter spaces.
2. Floor roller conveyors will be stowed. Stow ramp roller conveyors if not required for a baggage pallet.
3. Wheel well seats, if used, will be installed and hooked up to the seat-back support bar. AECMs will complete final seat installation. **NOTE:** Paratroop door observer seat (some aircraft) must be removed from the doors to allow opening/closing of the doors when the paratroop door litter stanchions are installed.
4. AE equipment will be positioned as required by the MCD. PTLOX will not be positioned adjacent to any hydraulic reservoir or component.
5. The average time to configure with two persons is 2-1/2 hours.

4.8. AE-3 (C-130J-30).

**NOTES:**

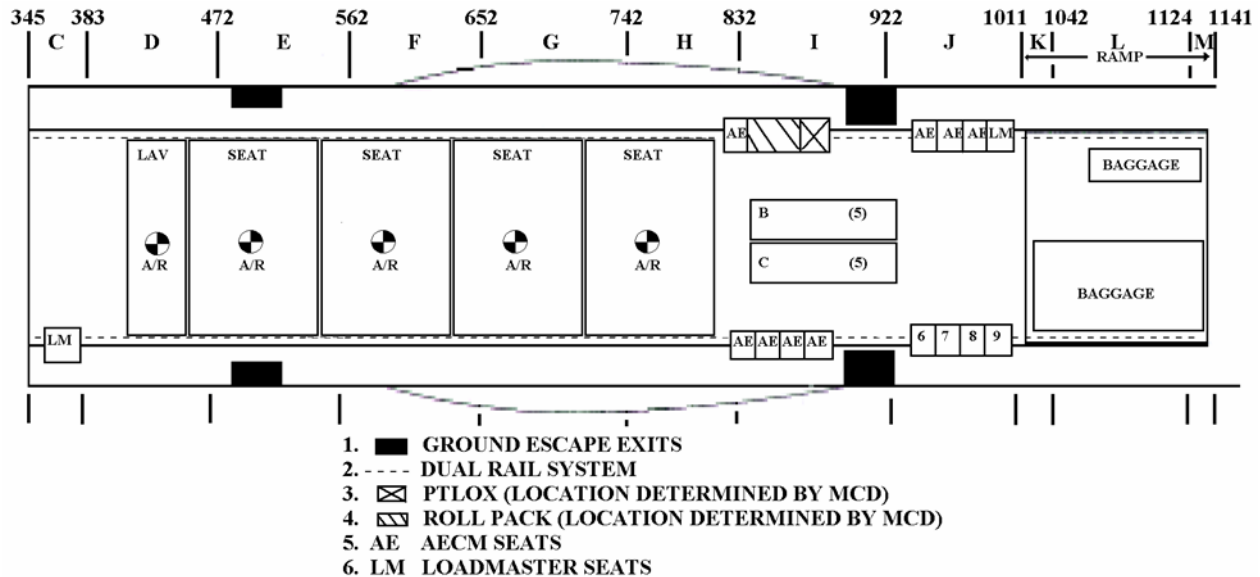
1. Normally provides 20 litter spaces, 53 patient/passenger seats, and 9 crew seats (seat belts on 20-inch centers). The number of AECMs governs seat availability.
2. Floor roller conveyors will be stowed. Stow ramp roller conveyors if not required for a baggage pallet.
3. AE equipment will be positioned as required by the MCD. PTLOX will not be positioned adjacent to any hydraulic reservoir or component.
4. The average time to configure with two persons is 1-1/2 hours.

4.9. AE-4 (C-130J-30).

**NOTES:**

1. This is the combat/contingency configuration and normally provides 60 litter spaces, 53 patient/passenger seats, and 9 crew seats. The number of AECMs governs seat availability.
2. Floor roller conveyors will be stowed. Stow ramp roller conveyors if not required for a baggage pallet.
3. AE equipment will be positioned as required by the MCD. PTLOX will not be positioned adjacent to any hydraulic reservoir or component.
4. The average time to configure with two persons is 2-1/2 hours.

4.10. AE-5 (C-130J-30).

**NOTES:**

1. Due to the non-availability of seat pallets and comfort pallets at most C-130 bases, load planners and users must coordinate for these items when requesting this configuration. This is a variation to the AE-4 combat/contingency configuration and provides 10 litter spaces, 32 palletized trip seats, 4 patient/passenger sidewall seats, and 9 crew seats. The number of AECMs governs seat availability.
2. Floor roller conveyors will be stowed. Stow ramp roller conveyors if not required for a baggage pallet.
3. AE equipment will be positioned as required by the MCD. PTLOX will not be positioned adjacent to any hydraulic reservoir or component.
4. The average time to configure with one person is 1-1/2 hours.

4.11. Aircraft Systems.

4.11.1. Oxygen.

4.11.1.1. Therapeutic oxygen. Not available on the C-130 or C-130J. Utilize the PTLOX, Mobile Oxygen Storage System (MOST) or compressed oxygen tanks as available.

4.11.1.2. Patient emergency oxygen. Utilize EPOS or POKs.

4.11.2. Electrical.

4.11.2.1. Electrical power for 400 Hz medical equipment is provided by an approved C-130 pig-tail adaptor located in the Electrical Cord Assembly Set (ECAS). Electrical power for 60 Hz medical equipment is provided by using the “modified” Avionics Frequency Converter.

4.11.2.2. Each outlet will provide 20 amps for an aircraft total of 60 amps.

CAUTION: On C-130 J aircraft, do not use the 3-pin “household type” service outlets for aeromedical evacuation missions.

4.12. Floor-Loading Procedures.

4.12.1. Floor-loading of patients is authorized for all contingency operations when a time critical environment exists (i.e. non-secure landing zones, areas faced with enemy siege/hostile fire, humanitarian reasons, etc.), and minimum ground time is essential. Floor-loading procedures can be practiced/trained during aeromedical readiness missions (ARMs), joint training operations, exercises, etc. The cargo/ramp floor will be configured with all rollers stowed (cargo permitting).

4.12.1.1. Ambulatory Patients. If available, any cushioning material may be used for seating, to prevent the patient from having to sit on the cargo floor. Seat ambulatory patients so they face forward in the aircraft. Attach a cargo tie-down strap for each row of patients, in a manner that it will provide forward restraint and body stability. See T.O. 1C-130A-9 for proper use of the tie down device.

4.12.2. Litter Patients. Two crewmembers are required to work simultaneously in securing the opposite sides of the litters to the floor (applies when securing two or three litters together). Position litters side-by-side and longitudinally on the cargo area floor, with the patient’s head toward the aft of the aircraft. A maximum of 15 litters, comprised of five rows of three litters, can be floor-loaded. Medical equipment can be secured on a litter(s) in the “I” or “L” sidewall litter tier or on the ramp. Secure the litters to the aircraft floor using the following procedures. (See [Figure 4.1.](#))

NOTE: An additional two pallet positions are available on the C-130J-30 model that can accommodate an additional 6 litter patients.

4.12.2.1. **One litter:** Center litter over “D” column. Use one tie-down device at each end of the litter. Connect clamp end of device to a tie-down ring in the “C” column, and run strap webbing over the litter handles, wrapping once around each handle. Attach the hook on the ratchet end of the tie-down device to the tie-down ring in the “E” column on the other side of the litter. Remove slack from strap webbing, and ratchet the tightening device (see T. O. 1C-130A-9 for proper use of the tie-down device). Repeat process at other end of litter. Ensure ratchets have 1½ turns.

4.12.2.2. **Two litters:** Place litters side-by-side, and align inboard litter handles over “D” column. Use two tie-down devices at each end of the litters. Connect clamp end of tie-down devices to

tie-down ring in “D” column, and run strap webbing over both inboard handles, then over respective outboard handle. Do not wrap strap webbing around any handles. Attach the hook on the ratchet end of the tie-down devices to the tie-down ring in “C” or “E” column (as applicable). Remove slack from strap webbing, and ratchet the tightening device (see T.O. 1C-130A-9 for proper use of the tie-down device). Repeat process at other end of litter. Ensure ratchets have 1½ turns.

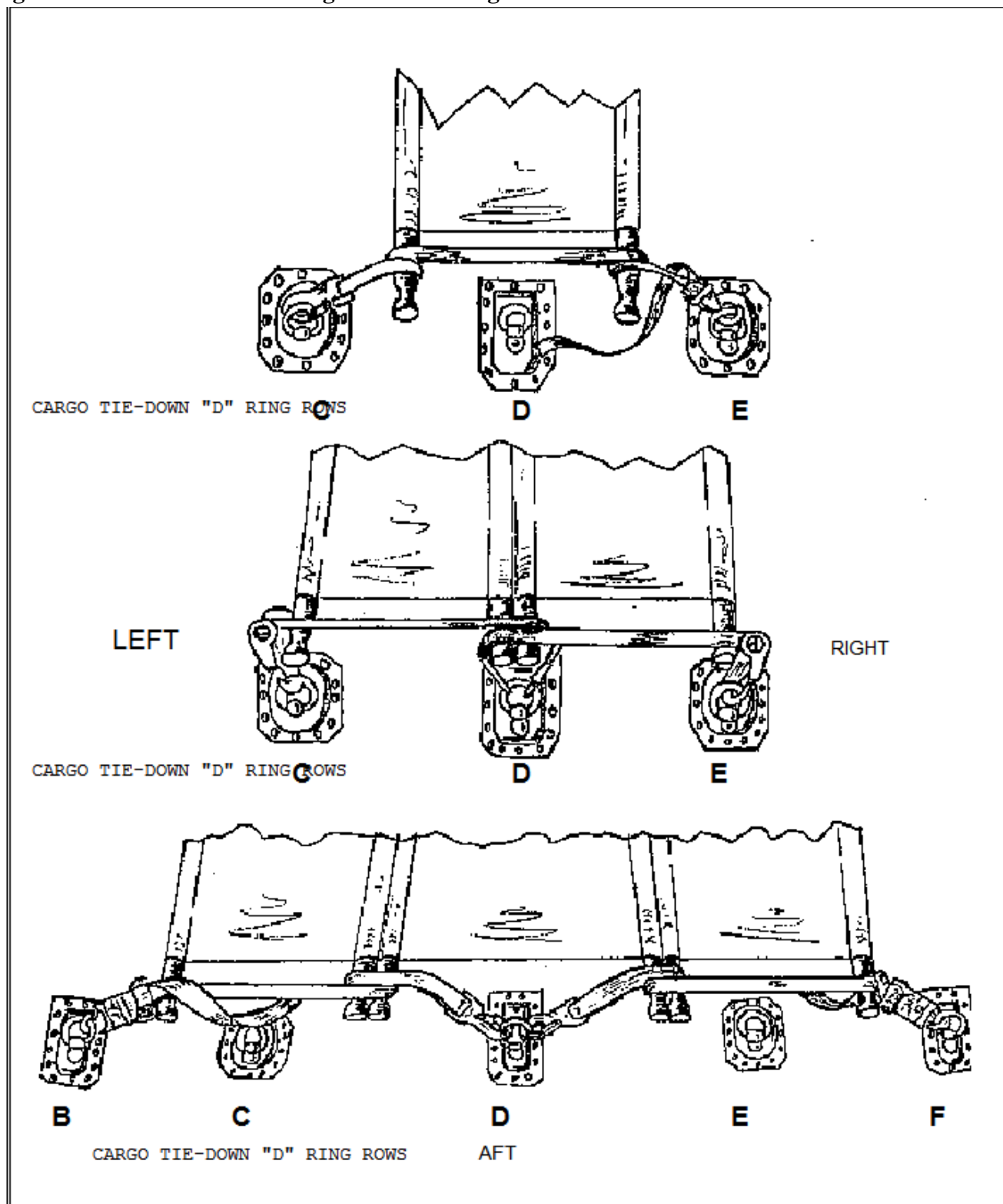
4.12.2.3. **Three litters:** Place litters side-by-side and center inboard litter over “D” column. Use two tie-down devices at each end of the litters. Connect clamp end of tie-down devices to tie-down ring in “D” column, and wrap strap webbing once around applicable paired litter handles, then over respective outboard handle. Do not wrap strap webbing around outboard handles. Attach the hook on the ratchet end of the tie-down devices to the tie-down ring in “B” or “F” column (as applicable). Remove slack from strap webbing, and ratchet the tightening device (see T.O. 1C-130A-9 for proper use of the tie-down device). Repeat process at other end of litter. Ensure ratchets have 1½ turns.

NOTE: Due to forward pallet stop bumper locations, litter handles may have to be secured forward of the litter stanchions mounted at the forward bulkhead.

4.12.2.4. On the C-130J, due to the absence of the “D” column ring in the first forward pallet position the use of one litter strap is authorized. Connect clamp end of device to a tie-down ring in the “F” column, and run strap webbing over the litter handle, wrapping once around each of the next two sets of litter handles then pass strap over last handle and then hook ratchet end of the tie-down device to the tie-down ring in the “B” column. Remove slack from strap webbing, and ratchet the tightening device (see T. O. 1C-130A-9 for proper use of the tie-down device). Repeat process at other end of litters. Ensure ratchets have 1½ turns.

4.12.3. Maximum altitude for floor-loaded patients is flight level 350 (FL350).

Figure 4.1. Litter Floor-Loading Tie-Down Diagram.



Chapter 5

C-17

C-17 CONFIGURATIONS

5.1. AE-1.

	Quantity	Weight	Station	Moment
Reference 5, DD Form 365-4 (Steward's Equipment)				
Water container (Igloo)	3	75	358	2.7
Std 2 gal liquid containers	1	25	260	.7
Hot cup	1	3	260	.1
Kit, passenger service	1	10	280	.3
Blankets, large	6	21	280	.6
Pillows, large w/case	6	12	280	.3
Blankets, small	54	54	dist (744)	4.0
Pillows, small w/case	54	27	dist (744)	2.0
Expendable supplies		10	260	.3
Pax info cards	102	3	280	.1
	TOTAL	240		11.1
Reference 6, DD Form 365-4 (Emergency Equipment)				
MB-1 life preservers (casualty)	12	48	280	1.3
LPU-6/P life preservers (infant cot)	7	28	280	.8
A/C life preservers	110	165	280	4.6
Protective clothing kit (PCK)	1	36	280	1.0
Parachutes	4	112	280	3.1
Emergency Passenger Oxygen System (EPOS)	102	204	280/dist (744)	15.1
Protective Breathing Equipment (PBE)	13	68	280	2.0
Oxygen Bottle, Portable	7	42	dist(744)	3.1
Survival Items (Vest, ML-4, CWU-16/P)	4 each	112	280	3.0
	TOTAL	815		34.0
Reference 7, DD Form 365-4 (Extra Equipment)				
Publications Box/Aircraft Armor	1/1	107/1125	400/217	4.0 /24.4
	TOTAL	1275		29.5



NOTES:

1. This AE configuration provides 9 litter spaces and a total of 54 seats. Forty eight (48) centerline seats may be added if the litters are installed at X=88; however, sidewall seats next to litters will not be available. The number of seats offered for ambulatory patients is normally 44; however, the number of AECMs govern the number of seats available. The final litter configuration and AECM seating will be determined by the MCD. A minimum of 10 seats are required for aeromedical evacuation crew members. AECM seat locations may vary in the cargo compartment based on patient/cabin observation requirements. Additional seats maybe required for emergency equipment and litter patients based on patient medical conditions.
2. Seats are numbered (front to rear) for identification and are referred to as seat one left or seat one right, etc. Litter tiers are identified alphabetically starting right to left from the rear to front.
3. Aerial delivery system (ADS) and logistic rails and roller conveyors are stowed except for the baggage pallet position. Baggage pallets will be loaded in the cargo ramp ADS rails.
4. Inboard ramp toes will be installed in the low position with rollers and guide rails installed. Outboard ramp toes will be installed in the high position with rollers removed and stowed.
5. The average time to configure with two people is 25 minutes.

Table 5.1. C-17 AIRCRAFT LSE CONFIGURATION

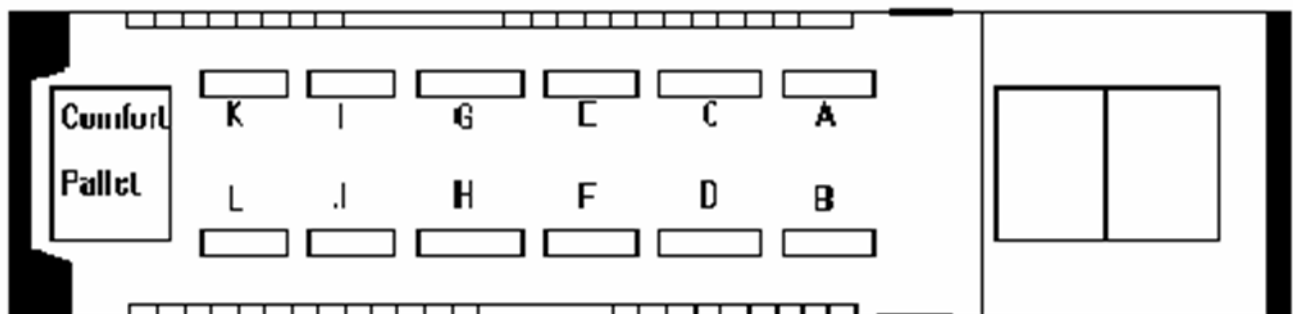
Minimum Required Equipment	Routine	Contingency
Mask, 358-series w/goggles	15	15
Emergency Escape Breathing Device (EEBD) or Protective Breathing Equipment (PBE)	6	6
Mask, Passenger (PAX) Oxygen (see note 1)	74	74
Emergency Passenger Oxygen System (EPOS) (see note 2)	102	102
Aeromedical Utility Panel Oxygen Mask (see note 3)	12	12
Protective Clothing Kit (PCK)	1	1
Goggle, Flash Blindness, MIL-G-635	4	4
Harness, Restraint, PCU-17/P	2	2
Parachute, BA-18M/BA-22 (see note 4)	4	4
Life Raft, 46-Person	3	3
Life Pres, Adult-Child (A/C)	110	110
Life Pres, LPU-6/P (Infant)	7	7
Life Pres, LPU-2/P or -10/P (see note 5)	4	4
Kit, Survival, MD-1/ML-4	4	4
Survival Vest (see note 6)	4	4
Body Armor	0	4
Suit, Anti-Exposure, CWU-16/P	4	4
Kit, Passenger Demonstration	1	1

NOTES:

1. 72 ea. above the sidewall seats and 2 ea. in the latrine.
2. EPOS is the preferred passenger oxygen, smoke, and fume protection. As a minimum, each aircraft will have one EPOS per passenger. Preposition additional EPOS for increased scheduled passenger loads.
3. Each aeromedical utility panel contains four masks.
4. Add additional parachutes as required by other configuration publications.
5. LPU-2/P or -10/P LPUs are required to integrate with LSE and are designed for use by aircrew personnel. Adult/Child LPUs are not compatible for use with parachutes and survival vests and must not be used as a substitute for these LPUs.
6. Survival vests provide crewmembers the necessary survival items while waiting for rescue or return to duty. Quantities will match quantities of parachutes aboard aircraft.

5.2. AE-2.

	Quantity	Weight	Station	Moment
Reference 5, DD Form 365-4 (Steward's Equipment)				
Water container (Igloo)	3	75	358	2.7
Std 2 gal liquid containers	1	25	260	.7
Hot cup	1	3	260	.1
Kit, passenger service	1	10	280	.3
Blankets, large	6	21	280	.6
Pillows, large w/case	6	12	280	.3
Blankets, small	54	54	3 (744)	4.0
Pillows, small w/case	54	27	dist (744)	2.0
ATGL	1	3620	391	141.5
Expendable supplies		10	260	.3
Passenger information cards	102	3	280	.1
TOTAL		3860		152.6
Reference 6, DD Form 365-4 (Emergency Equipment)				
MB-1 life preservers (casualty)	48	192	280	5.4
LPU-6/P life preservers (infant cot)	7	28	280	.8
A/C life preservers	110	165	280	4.6
Protective clothing kit (PCK)	1	36	280	1.0
Parachutes	4	112	280	3.1
Emergency Passenger Oxygen System (EPOS)	102	204	280/dist (744)	15.1
Protective Breathing Equipment (PBE)	13	68	280	2.0
Oxygen Bottle, Portable	7	42	dist(744)	3.1
Survival Items (Vest, ML-4, CWU-16/P)	4 each	112	280	3.0
TOTAL		959		38.1
Reference 7, DD Form 365-4 (Extra Equipment)				
Aeromedical Station	9	594	634/937	49.7
Publications Box/Aircraft Armor	1/1	107/1125	400/217	4.0/24.4
TOTAL		1869		79.2



NOTES:

1. This AE configuration provides 36 litter spaces (high density) and a total of 54 seats. Forty eight (48) centerline seats may be added if the litters are installed at X=88; however, sidewall seats next to litters will not be available. The number of seats offered for ambulatory patients normally is 44; however, the number of AECMs govern the number of seats available. The final litter configuration and AECM seating will be determined by the MCD. A minimum of 10 seats are required for AECMs. AECM seat locations may vary in the cargo compartment based on patient/cabin observation requirements. Additional seats maybe required for emergency equipment and litter patients based on patient medical conditions.
2. Seats are numbered (front to rear) for identification and are referred to as seat one left or seat one right. Litter tiers are identified alphabetically starting right to left from the rear to front.
3. ADS rails, logistic rails and roller conveyors on the main cargo floor are stowed except for the comfort pallet position. Baggage pallets will be loaded in the cargo ramp ADS rails.
4. Inboard ramp toes will be installed in the low position with rollers and guide rails installed. Outboard ramp toes will be installed in the high position with rollers removed and stowed.
5. The average time to configure with two people is one hour and 25 minutes.

5.3. Configuration Considerations. On designated ARM and operational AE missions, configure the aircraft during pre-flight, per T.O. 1C-17A-9 and AFI 11-2C-17V3, Addenda A, and this AFI.

5.3.1. Litter Support Provisions. Litter support provisions on this aircraft are available. The C-17 has an integral capability of three litter stations capable of moving nine litter patients. With additional stanchions brought on board, maximum capacity is 12 litter stations capable of moving 36 litter patients. Each litter station will hold a maximum of three litters.

5.3.1.1. The maximum weight that may be placed in each litter position and still meet C-17 structural crashworthiness requirements are as follows: 250 lbs (top position), 275 lbs (middle position) and 275 lbs (bottom position).

NOTE: The integral stanchion arms will face inboard to facilitate egress.

5.3.1.2. Roller conveyers will be stowed, unless required for comfort/baggage pallets or Litter Station Augmentation Set (LSAS) storage box. Rollers on the ramp will be stowed during patient onloading and offloading operations.

5.3.2. Available litter stations and ambulatory seating will depend on the aircraft cabin's mission configuration.

5.3.2.1. The Patient Support Pallet (PSP) is a standard 463L pallet designed to carry a combination of two litter towers holding 3-4 litters for a total of six to eight litter patients, two rows of three seats for a total of six ambulatory patients or a litter/seat combination of 1-litter tower (3-4 litters) with one row of three seats.

NOTE: Each PSP comes with only two seats. If three or six seat configuration is desired, procure one to four additional seats from another PSP set. Each seat has storage capacity for required prepositioned life support (EPOS and life preserver).

5.3.2.2. DELETE

5.3.2.3. **Ground Configuration.** The PSP will be transported to the aircraft by aerial port personnel, positioned and secured on the aircraft by the Loadmaster and configured by the AE crew. Loading the patient support pallet, medical equipment, and airline seats should be accomplished before the flight crew leaves the aircraft or prior to entering Crew Rest.

5.3.2.3.1. Depending on the patient load, an air transportable galley-lavatory (ATGL) (comfort pallet) may be required.

5.3.2.4. **Flight Configuration.** PSP configuration will be determined by patient requirements.

5.3.2.5. The PSPs have been fielded in block increments. The Block 1 initial design supports three litter patients per litter tier. An extension added to the litter tower of the Block 2 design will support four litter patients per tier. Configuration options follow:

5.3.2.5.1. **PSP-W:** Two litter tiers along the outer aspect of the pallet supporting six to eight litter patients. To facilitate egress, PSP-W will be used if maximum numbers of twelve (12) PSP(s) are required.

5.3.2.5.2. **PSP-L:** Two litter tiers down the center of the PSP with litter arms facing out supporting six to eight litter patients.

5.3.2.5.3. **PSP-M:** Three PSP seats and one litter tier along the outer aspect of the pallet supporting up to three to four litter patients and three ambulatory patients. During an inflight medical emergency, seats can be removed and placed off to the side to increase working space.

NOTE: Each seat weighs 65 LBS. Combinations of one to three seats may be carried on the PSP-M.

5.3.2.5.4. **PSP-S:** Six PSP seats supporting up to six ambulatory patients, medical attendants or crewmembers. Each seat is rated to hold 260 LBS.

5.3.2.6. When three patients are transported per litter tower, each litter position is rated to hold 320 LBS. When four patients are transported per litter tower the bottom and second litter positions are rated to hold 320 LBS, third litter position is rated to hold 220 LBS and the top litter position is rated to hold 160 LBS.

WARNING: Failure to adhere to above litter weight ratings could result in injury.

WARNING: The LM/BO and AECM shall avoid (when possible) placing the PSP-L configuration directly in front of or behind a center aisle PSP configuration (PSP-M, S, W). The abrupt change from a side to a center aisle between two pallets (fore and aft) creates a “dogleg” that prevents enplaning, deplaning, or egress of a litter patient in that direction.

WARNING: The AECM shall ensure that PSPs adjacent to an emergency exit do not impede or prevent egress.

5.3.2.7. Use C3 configuration ([Figure 5.1.](#)) as reference for PSP loading. C3 configuration places pallets in the logistic rails side-by-side in the aircraft. Each side-by-side configuration is considered one pallet position. To follow are PSP pallet position specifics:

5.3.2.7.1. Pallet position L1/R1 are not authorized for the PSP litter configurations, but can be used for the comfort pallet and/or 6-12 PSP seats. Seats should be used by flight crew, Critical Care Aeromedical Evacuation Transport Team (CCATT) and aeromedical crew members (AECMs).

WARNING: PSPs will not be loaded in the ADS rails; sideways litter patient orientation is not authorized.

5.3.2.7.2. PSP(s) can be placed in pallet positions L2/R2 to L6/R6, for a maximum of 12 PSP(S). Pallet positions L2/R2 through L5/R5 can hold 6-8 patients per pallet. Pallet positions L6/R6 can hold up to three ambulatory and 3-4 litters per pallet. Total number of litters that can be carried is 54-72 litters. Maximum litter load is dependent on whether patients are loaded three or four high.

5.3.2.7.3. Pallet position L7/R7 is only authorized for the PSP-S. For egress purposes, only the three seats on the inside track of the pallet will be used for patients, flight crew, CCATT and/or AECMs.

5.3.2.7.4. Pallet positions L8/R8 and L9/R9 are not authorized for PSP use. Extra medical equipment and baggage may be tied down in this area.

5.3.2.7.5. A combination of PSP(s) and the three C-17 integral stanchions can be used. A maximum of 9 PSP(s) can be used with the three integral stanchions for a max litter load of 45-57. Maximum litter load is dependent on whether PSP patients are loaded three or four high.

Figure 5.1. C-3 Configuration for Patient Support Pallets (PSP).

	Quantity	Weight	Station	Moment
Reference 5, DD Form 365-4 (Steward's Equipment)				
Water container (Igloo)	3	75	358	2.7
Std 2 gal liquid containers	1	25	260	.7
Hot cup	1	3	260	.1
Kit, passenger service	1	10	280	.3
Blankets, large	6	21	280	.6
Pillows, large w/case	6	12	280	.3
Blankets, small	54	54	dist (744)	4.0
Pillows, small w/case	54	27	dist (744)	2.0
Expendable supplies		10	260	.3
Pax info cards	102	3	280	.1
	TOTAL	240		11.1
Reference 6, DD Form 365-4 (Emergency Equipment)				
MB-1 life preservers (casualty)	2	8	280	.2
LPU-6/P life preservers (infant cot)	7	28	280	.8
A/C life preservers	110	165	280	4.6
Protective clothing kit (PCK)	1	36	280	1.0
Parachutes	4	112	280	3.1
Emergency Passenger Oxygen System (EPOS)	102	204	280/dist (744)	15.1
Protective Breathing Equipment (PBE)	6	31	280	1.0
Survival Items (Vest, ML-4, CWU-16/P)	4 each	112	280	3.0
	TOTAL	696		28.8
Reference 7, DD Form 365-4 (Extra Equipment)				
Publications Box	1	107	400	4.0
Aircraft Armor	1	1125	217	24.4
	TOTAL	1232		28.4



NOTES:

1. Fifty-four passenger seats are offered.
2. ADS rails and roller conveyors between the ADS rails are up. Logistic rails and other roller conveyors are stowed. Maximum of 11 HCU-6/E pallet positions are available.
3. Married pallets may be airlifted in the ADS rails; however, they must be constructed in the 108-inch bias.
4. Ramp Toes (4) will be installed in the low position with guide rails and rollers installed.
5. The average time to configure with two people is 25 minutes.
6. ADS Pallet Number Centroids:

1	2	3	4	5	6	7	8	9	10	11
401	491	581	671	761	851	941	1031	1121	1229	1319

5.4. Aircraft Systems.**5.4.1. Oxygen.**

5.4.1.1. Therapeutic oxygen. A minimum quantity of 100 liters of LOX is required for scheduled aeromedical evacuation missions originating from staged/home station. At en route stops, the MCD in conjunction with the PIC will ensure the total LOX quantity is sufficient to meet all anticipated patient needs. **EXCEPTION:** For In System Select (ISS) aircraft or AE alert missions, the MCD in conjunction with the PIC will ensure the total LOX quantity is sufficient to complete the mission. The MCD will notify C2 of LOX quantity limitation.

5.4.1.1.1. Each therapeutic oxygen outlet supports one ventilator. Oxygen is supplied through two 50-psi regulators. The regulators are redundant and provide 100 liters/minute to any 1 of the therapeutic outlets or 60 liters/minute to all 5 outlets simultaneously. An additional oxygen source (PTLOX, MOST or compressed oxygen tanks) must be utilized if greater than five ventilated patients will be carried.

NOTE: Provisions must also be available for an emergency oxygen source if five ventilated patients will be transported.

5.4.1.2. Patient emergency oxygen. Ambulatory and litter patients will utilize the passenger emergency oxygen system.

NOTE: Floor-loaded patients or patients positioned on PSPs will be provided EPOS.

NOTE: Backrest position could obstruct the oxygen panels and mask containers of patients placed in litter tier positions. Ensure a mask is accessible to each litter patient.

5.4.2. Electrical.

5.4.2.1. A primary 115V/60 Hz converter is installed on-board the C-17 which provides 60 Hz electrical power to the six aeromedical electrical outlet panels. There are two 115 VAC/60 Hz outlets on each panel.

5.4.2.1.1. Do not exceed 30 amps total to the 60 Hz system (This includes all 60 Hz outlets on the six aeromedical electrical outlet panels).

5.4.2.1.2. To increase C-17 electrical amp capability, a “modified” Avionics Frequency converter may be plugged directly into one of the 115-200V/400 Hz AC outlets located on the six aeromedical electrical outlet panels. Do not exceed 20 amps per aircraft left side and 20 amps per aircraft right side to the 400 Hz system for a total of 40 amps when using the Avionics Frequency converter.

5.5. Floor-Loading Procedures.

5.5.1. Floor-loading procedures for loading patients are authorized for all contingency operations when a time critical environment exists (i.e. non-secure landing zones, areas faced with enemy siege/hostile fire, humanitarian reasons, etc.), and minimum ground time is essential. Floor-loading procedures can be practiced/trained during ARMs, joint training operations, exercises, etc. The cargo area floor will be configured with all rollers stowed.

5.5.2. Ambulatory Patients: If available, any cushioning material may be used for seating, to prevent the patient from having to sit on the bare cargo area floor. Seat ambulatory patients so they face forward in the aircraft. Attach a cargo tie-down strap for each row of patients, in a manner that it will provide forward restraint and body stability. See T.O. 1C-17-9A for proper use of the tie-down device.

5.5.3. Litter Patients: Two crewmembers are required to work simultaneously in securing the opposite sides of the litters to the floor (applies when securing two or three litters together). Position litters side-by-side and longitudinally on the cargo area floor, with the patient’s head toward the aft of the aircraft. A total of 48 litter patients can be floor-loaded on the C-17. This is comprised of 8 rows of two groups of three litter patients. The first row of litters starts at FS 360. Additional 12 litter patients can be placed on the ramp for maximum utilization of the aircraft.

5.5.3.1. **One litter:** Use one tie-down device at each end of the litter. Center litter over “D” column. Connect clamp end of device to row “C”, and run strap webbing over the litter handles, wrapping once around each handle. Attach the hook on the ratchet end of the tie-down device to the tie-down ring on row “E”. Remove slack from strap webbing, and ratchet the tightening device. Repeat process at other end of litter. Ensure ratchets have 1½ turns.

5.5.3.2. **Two litters:** Use one tie-down device at each end of the litter. Align inboard litter handles over “D” column. Connect clamp end of device to row C or E, and run strap over outside handle, wrap once around center handles, strap over outside handle. Attach the hook on the ratchet end of the tie-down device to the tie-down ring on row C or E. Remove slack from strap webbing, and ratchet the tightening device. Repeat process at other end of litter. Ensure ratchets have 1½ turns.

5.5.3.3. **Three Litters:** Use one tie-down device at each end of the litter. Position outside litters as close to Row B and F as possible to create a center aisle. Hook cargo strap to row B or F. Pass over first handle, wrap center handles, pass strap over last handle and then hook ratchet into row D. Ensure ratchets have 1½ turns.

5.5.4. Side wall seats remain usable with this floor-load configuration. Inflight kits, medical equipment, and baggage will need to be tied on side wall seats. Equipment litters may be used if factored into 48-60 floor-loaded litter capacity. A sufficient number of side wall seats must be maintained for AECMs.

5.5.5. Maximum altitude for floor-loaded patients is flight level 350 (FL350).

5.6. Litter Station Augmentation Set (LSAS). A C-17 LSAS has nine litter stations (18 stanchions, 18 struts and 9 utility panels) and spare parts (one pair of additional struts, additional stanchion, and additional utility panel) providing 27 additional litter capability.

5.6.1. The intended use of the C-17 LSAS is for large patient loads that exceed the aircraft's organic litter carrying capability. Although a mission may not require a full 36 litter positions, the LSAS is a kit and the full complement of components (in storage box) will be transported on the mission. This ensures that the equipment set is kept together for all stages of employment and allows repositioning movement of the C-17 LSAS as designated by the airlift-tasking agency.

5.6.2. Custodial Duties.

5.6.2.1. Each C-17 LSAS will be considered a kit and an inventory will be included. The custodian will ensure that each C-17 LSAS is inventoried upon receipt, and before/after each mission.

5.6.2.2. The custodian will prepare a DD Form 1149, Requisition and Invoice/Shipping Document, provide it to the Charge Medical Technician for the AE mission, and include it with any LSAS being used for an AE mission. The DD Form 1149 is used by the AECM, Aeromedical Evacuation Operations Officer (AEEO), or AE ground support personnel to initiate return shipment of the LSAS when it's left at a station other than the origination.

5.6.3. LSAS Tasking. The airlift-tasking agency, Tanker Airlift Control Center (TACC), USAFE/PACAF Warfighting Headquarters (WFHQ), or Air Mobility Division (AMD)/Aeromedical Evacuation Control Team (AECT) is responsible for tasking the LSAS for use when required. If the LSAS is needed for an AE mission at a location other than where it is assigned, TACC, USAFE/PACAF WFHQ, or AECT will task and position the LSAS to the location required for the mission, using opportune airlift or the Traffic Management (TMO) system. The C-2 agency may consider tasking an AEEO to accompany the C-17 LSAS when it will terminate at a location other than point of origination. The C-2 agency may also determine that a crew duty time/flight duty period waiver may be necessary to facilitate getting the LSAS properly processed through TMO for return shipment.

5.6.3.1. When the LSAS is employed for an AE mission, care and management of the LSAS is transferred from the custodian to AE personnel until the time it is inserted into the TMO system for return shipment.

5.6.4. LSAS Positioning. If an LSAS is required for an operational AE mission, the storage box will normally be loaded on the aircraft ramp in the aerial delivery system (ADS) rails IAW T.O. 1C-17A-9 (Position 10 or 11).

5.6.4.1. If a full complement of litters is not required, the LSAS may be positioned in any ADS (Center Row) pallet position. This positioning is intended to maximize the C-17 litter capacity and facilitates aircraft evacuation paths on both sides of the aircraft.

5.6.4.2. The LSAS will not be positioned in the logistic rail system at any time during patient loading/offloading or during flights with patients on board the aircraft. This is to ensure adequate egress paths are maintained IAW T.O. 1C-17A-1.

5.6.4.3. Should a LSAS storage box be transported as cargo with no patients on board the aircraft, the container may be positioned in any pallet position using either rail system IAW T.O. 1C-17A-9.

5.6.5. **Mission Execution.** The MCD will develop a load plan based on patient requirements. The AE crew will receive the LSAS equipment at the aircraft from the LSAS custodial Ramp Services/Aerial Port Squadron (APS) personnel and inspect the LSAS for damage prior to use. The AE crew will configure the aircraft IAW the load plan using the aircraft's integral organic litter station components and those provided in the C-17 LSAS.

5.6.6. **Patient Loading/Offloading.** The LSAS will remain onboard the aircraft during patient loading/offloading. **EXCEPTION:** In the rare event that a specific patient's condition, equipment needs or size raises serious safety concerns, the LSAS box may be removed from the aircraft for increased clearance. The PIC with coordination between the MCD and LM is the final authority in determining if the LSAS should be removed to facilitate patient on/offloading. The MCD will request ground handling equipment, as required, on the off-load message.

WARNING: During loading/off loading, pay attention to the elevated area around the edge of the LSAS. (This area could be a potential tripping hazard). Spotter(s) should be used to ensure litter bearers are aware of the hazard. When on/offloading patients of excessive weight or with excessive equipment requiring more than a four-person carry, extra caution should also be used.

5.6.7. **Mission termination.** AECMs, Loadmasters, AEOOs, AE ground support and/or flight line personnel will deconfigure the LSAS as required for storage/shipping. (Refer to paragraph 5.6.9.2. for LSAS broken equipment swap out procedures). AECMs will tag damaged components, which must be placed back in the LSAS storage box with AFTO Form 350, and also document the deficiency on the AFTO Form 244. If LSAS terminates at another location than its origin, the AECMS, AEOOs, AE ground support will ensure the LSAS DD Form 1149 is processed through the local TMO (as described in paragraph 5.6.2.2.)

5.6.7.1. The Medical Crew Director (MCD) will call the 24-hour contact AE cell at their airlift control agency to report on the mission. For PACAF/USAFE missions, WFHQ or AECT will phone patch-in TACC for mission termination report. This report will include information regarding disposition of the LSAS. Specifically, the MCD will report the on-load/off-load International Civil Aviation Organization (ICAO) code of the LSAS, equipment identification number, Transportation Control Number (TCN) and describe damaged equipment which was tagged using AFTO Form 350, Repairable Item Processing Tag.

5.6.7.2. At enroute locations, reconfiguration and/or removal of LSAS components is **not authorized** unless coordinated with TACC/XOPA.

5.6.8. **LSAS Tracking/Repositioning.** In most cases, the LSAS will return to the originating location on the mission on which it was flown. If an AE mission terminates at a location other than origin, the LSAS will be processed through the TMO as cargo. It is necessary that AE crew, AEEO, and AE ground support personnel are familiar with the DD Form 1149 so they may process it and the LSAS kit at the mission termination TMO location.

5.6.8.1. The AECM, AEOO, or AE ground support personnel will obtain a TCN from TMO and convey this information to the AE C2 during end of mission report.

5.6.8.2. APS personnel unload aircraft and take cargo to the marshalling yard or TMO for processing. With APS assistance the AECM, AEOO or AE ground support personnel will process the DD Form 1149 for shipment of the LSAS to the owning unit.

5.6.8.3. The tasking agency will serve as a conduit for information between AECMs, aerial port functions, and other operational agencies when applicable.

5.6.9. **Maintenance.**

5.6.9.1. **Minor Repairs.** At home station, the C-17 LSAS custodian will accomplish minor repairs if possible. Other than the utility panel, the LSAS components are stamped steel, and will not have a minor maintenance requirement.

5.6.9.2. **Major Repairs.** At mission termination, the AE crews will coordinate with the Loadmaster to swap damaged LSAS components with functional components from the aircraft's organic complement of three litter stations. This ensures that the C-17 LSASs are kept in fully mission ready status. However, the aircraft complement of litter stations should not be totally decimated; at least one fully functional litter station should remain on the aircraft. If broken litter station parts are swapped with the aircraft's organic complement of litter stations, the Loadmaster will annotate the defects on the AFTO Form 781A, Maintenance Discrepancy and Work Document, to ensure aircraft component repair.

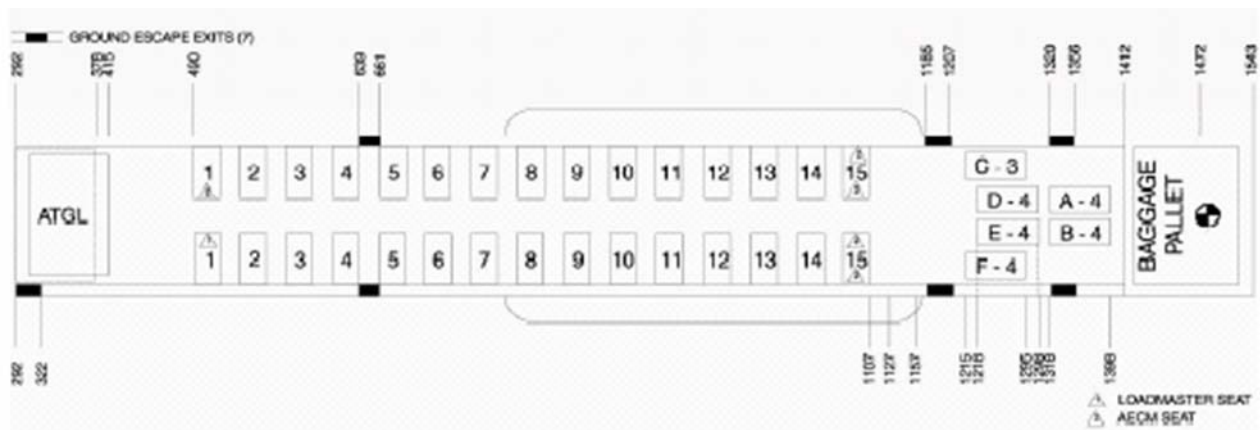
5.6.9.3. **Spare Parts.** The spare parts that will be contained in the C-17 LSAS are one pair of additional struts, one additional stanchion, and one additional utility panel. The custodian will ensure that spare parts are present in the storage box and functional.

Chapter 6

C-141

C-141 CONFIGURATIONS

6.1. AE-1.

**NOTES:**

1. This aeromedical evacuation configuration provides 23 litter spaces (high density) and a total of 90 aft-facing seats on 42-inch spacing (**EXCEPTION:** 46 inch spacing between rows 4 and 5.) The number of seats offered for ambulatory patients is normally 80; however, the number of cargo compartment crewmembers will govern the number of seats available. A minimum of 10 seats is required for cargo compartment area crewmembers (AECMs and LMs); additional seats are required for additional crewmembers. Aeromedical crew seat locations may vary in the cargo compartment based on patient/cabin observation requirements. Additional seats may be required for emergency equipment and litter patients based on patient medical conditions.
2. Reducing litter spaces may increase seat spaces. Reducing seat spaces may increase litter spaces.
3. Seats are numbered for identification and are referred to as seat 1 left or seat 1 right, etc. Litter tiers are identified alphabetically. The number on the litter spaces indicates the maximum number of litters per each tier.
4. The dotted lines denote the crew rest facility.
5. Restraint rails and roller conveyors are stowed except as required for comfort and baggage pallet. Stow hinged walkways with hinged section hanging vertical to the floor. This paragraph applies to both operational missions and ARMs.
6. The side-facing seats immediately in front of the forward side emergency exits and emergency gear access panels will be rolled when aft-facing seats are installed. Side-facing seats must be removed when installing litters along side of aircraft.
7. The average time to configure with four personnel is four hours.
8. Ramp pallet is limited to 7500 lbs, which includes the weight of the pallet/nets.

Table 6.1. C-141 AIRCRAFT LSE CONFIGURATION

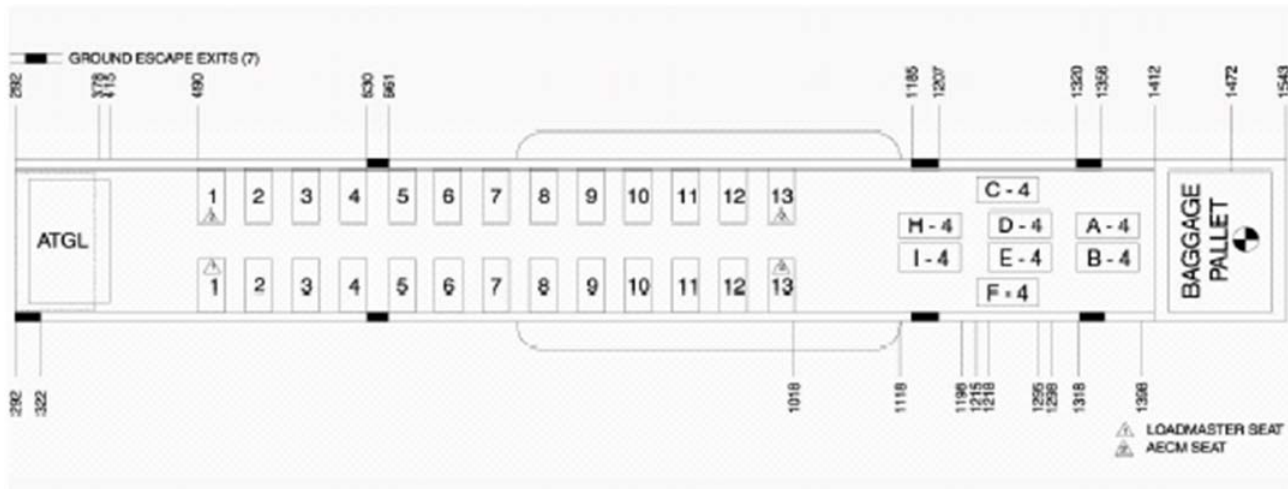
Minimum Required Equipment	Routine	Contingency
Mask, 358-series w/goggles	8	8
Mask, Firefighter, Smoke (see note 1)	2	2
Mask, AWACS (MBU-12/P or -5/P) (see note 1)	5	5
Emergency Escape Breathing Device (EEBD) or Protective Breathing Equipment (PBE)	4	4
Mask, Passenger (PAX) Oxygen (see note 2)	150	150
Emergency Passenger Oxygen System (EPOS) (see note 3)	150	150
Protective Clothing Kit (PCK)	1	1
Goggle, Flash Blindness, MIL-G-635	3	3
Harness, Restraint, PCU-17/P	2	2
Parachute, BA-18M/BA-22 (see note 4)	As Required	As Required
Life Raft, 20-Person (F-2B)	6	6
Life Pres, Adult-Child (A/C) or, (see note 5)	160	160
Life Pres, LPU-5/P (Adult)	140	140
Life Pres, LPU-2/P or -10/P (see note 6)	As Required	As Required
Life Pres, LPU-6/P (Infant)	7	7
Survival Vest (see note 7)	As Required	6
Body Armor	0	6
Suit, Anti-Exposure, CWU-16/P	6	6
Kit, Minimum Survival (MSK) 0	0	0
Kit Passenger Demonstration	1	1

NOTES:

1. P/N 358-1506 series oxygen mask with goggles attached is the preferred smoke and fume protection for aircrew personnel. Firefighters smoke and AWACS masks may be used until 358-series oxygen masks and goggles are available.
2. If available, preposition 50 containers with 3 passenger masks installed.
3. EPOS is the preferred passenger oxygen, smoke, and fume protection. As a minimum, each aircraft will have one EPOS per passenger. Preposition additional EPOS for increased scheduled passenger loads.
4. Add additional parachutes as required by other configuration publications.

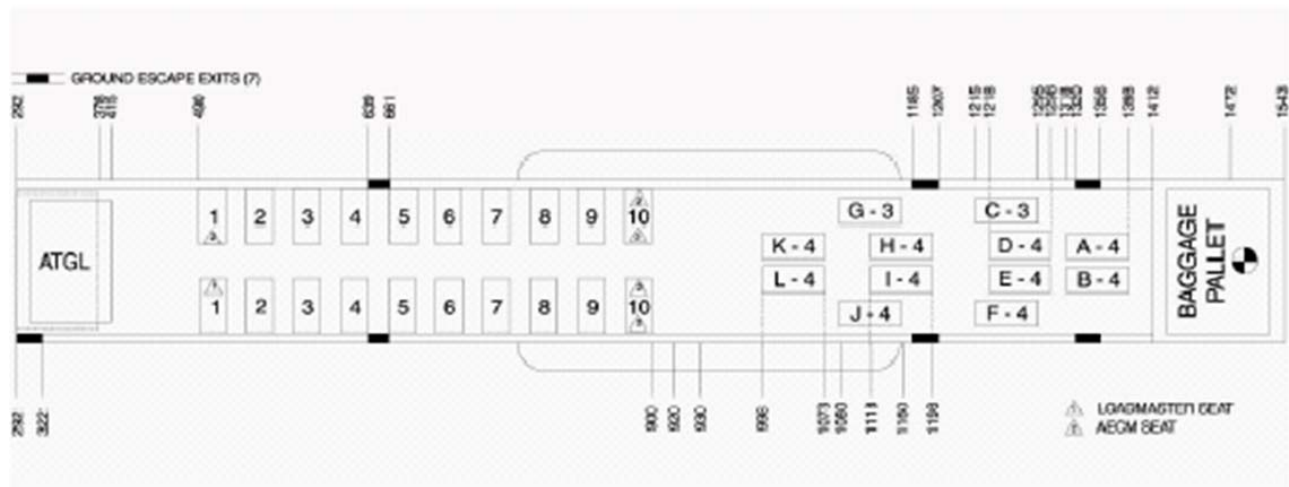
5. The adult/child LPU is the preferred LPU for patients/passengers. The LPU-5/P LPU may be used when adult/child LPUs are not available. As a minimum, each aircraft will have one LPU for each passenger.
6. LPU-2/P or -10/P LPUs are required to integrate with LSE and are designed for use by aircrew personnel. Adult/child LPUs are not compatible for use with parachutes and survival vests and must not be used as a substitute for these LPUs.
7. Survival vests are required when parachutes are prepositioned aboard aircraft for bailout. Survival vests provide crewmembers the necessary survival items while waiting for rescue or return to duty. Quantities will match quantities of parachutes aboard aircraft.

6.2. AE-2.

**NOTES:**

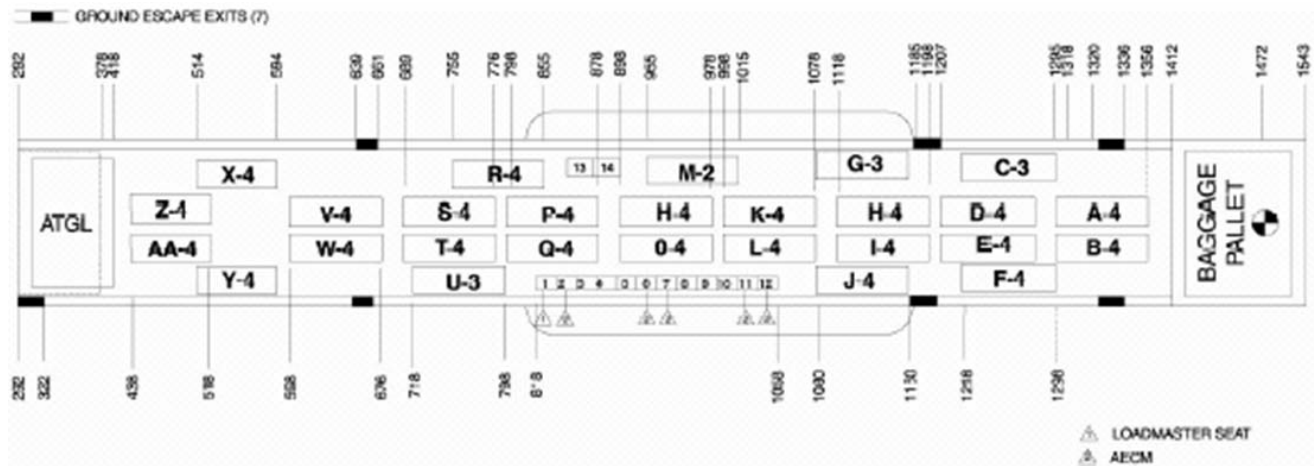
1. This aeromedical evacuation configuration provides 31 litter spaces (high density) and a total of 78 aft-facing seats on 42-inch spacing (**EXCEPTION:** 46-inch spacing between rows 4 and 5). The number of seats offered for ambulatory patients normally is 68; however, the number of cargo area crew govern the number of seats available. A minimum of 10 seats is required for cargo compartment area crewmembers (AECMs and LMs); additional seats are required for additional crewmembers. Aeromedical crew seat locations may vary in the cargo compartment based on patient/cabin observation requirements. Additional seats may be required for emergency equipment and litter patients based on patient medical conditions.
2. Reducing litter spaces may increase seat spaces. Reducing seat spaces may increase litter spaces.
3. Seats are numbered for identification and are referred to as seat 1 left or seat 1 right, etc. Litter tiers are identified alphabetically. The number on the litter spaces indicates the maximum number of litters per each tier.
4. The dotted lines denote the crew rest facility.
5. Restraint rails and roller conveyors are stowed except as required for comfort and baggage pallet. Stow hinged walkways with hinged section hanging vertical to the floor. This paragraph applies to both operational missions and ARMs.
6. The side-facing seats immediately in front of the forward side emergency exits and emergency gear access panels will be rolled when aft-facing seats are installed. Side facing seats must be removed when installing litters along side of aircraft.
7. The average time to configure with four personnel is four hours.
8. Ramp pallet is limited to 7500 lbs, which includes the weight of the pallet/nets.

6.3. AE-3.

**NOTES:**

1. This aeromedical evacuation configuration provides 46 litter spaces (high density) and a total of 60 aft-facing seats on 42-inch spacing (**EXCEPTION:** 46-inch spacing between rows 4 and 5). The number of seats offered for ambulatory patients normally is 50; however, the number of cargo area crew govern the number of seats available. A minimum of 10 seats is required for cargo compartment area crewmembers (AECMs and LMs); additional seats are required for additional crewmembers. Aeromedical crew seat locations may vary in the cargo compartment based on patient/cabin observation requirements. Additional seats may be required for emergency equipment and litter patients based on patient medical conditions.
2. Reducing litter spaces may increase seat spaces. Reducing seat spaces may increase litter spaces.
3. Seats are numbered for identification and are referred to as seat 1 left or seat 1 right, etc. Litter tiers are identified alphabetically. The number on the litter spaces indicates the maximum number of litters per each tier.
4. The dotted lines denote the crew rest facility.
5. Restraint rails and roller conveyors are stowed except as required for comfort and baggage pallet. Stow hinged walkways with hinged section hanging vertical to the floor. This paragraph applies to both operational missions and ARMs.
6. The side facing seats immediately in front of the forward side emergency exits will be rolled when aft-facing seats are installed. Side facing seats must be removed when installing litters along side of aircraft.
7. The average time to configure with four personnel is four hours.
8. Ramp pallet is limited to 7500 lbs which includes the weight of the pallet/nets.

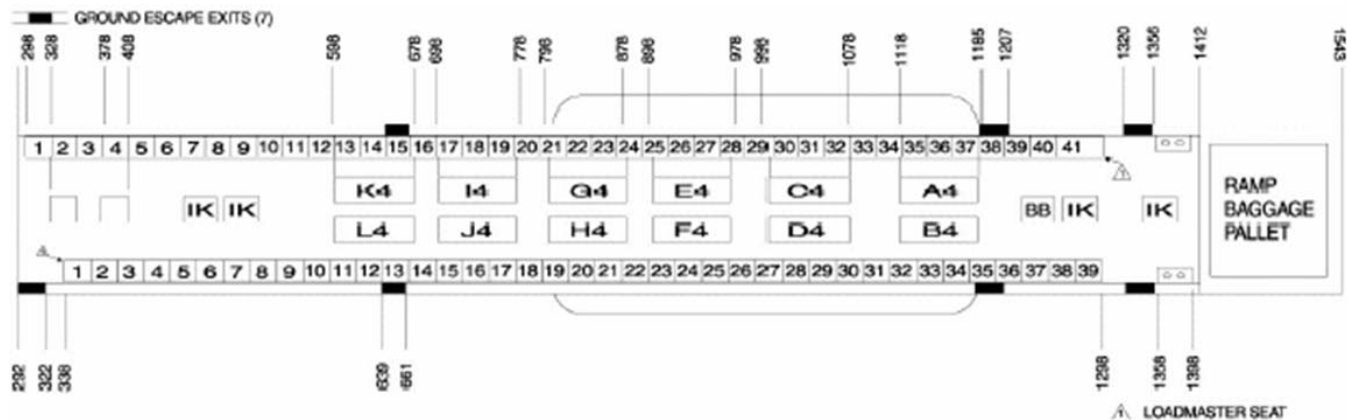
6.4. AE-4.



NOTES:

1. This aeromedical evacuation configuration is the maximum litter and attendant arrangement. It offers 103 litters and 14 side facing seats. The number of cargo area crew govern the number of seats available. A minimum of 10 seats is required for cargo compartment area crewmembers (AECMs and LMs); additional seats are required for additional crewmembers. Aeromedical crew seat locations may vary in the cargo compartment based on patient/cabin observation requirements. Additional seats may be required for emergency equipment and litter patients based on patient medical conditions.
2. The dotted line denotes the crew rest facility.
3. Seats are numbered for identification and are referred to as seat 1 left or seat 13 right, etc. Litter tiers are identified alphabetically. The number in the litter spaces indicates the maximum number of litters per each tier.
4. Restraint rails and roller conveyors are stowed except as required for comfort and baggage pallet. Stow hinged walkways with hinged section hanging vertical to the floor or folded on top of walkways. Side-facing seats must be removed when installing litters along side of aircraft. This paragraph applies to both operational missions and ARMs.
5. The average time to configure with six personnel is six hours.
6. Ramp pallet is limited to 7500 lbs which includes the weight of the pallet/nets.
7. When using upper tiers of litter U3, the technical publications storage box will need to be removed.

6.5. AE-5.

**NOTES:**

1. This aeromedical evacuation configuration provides 48 litter spaces (high density) and a total of 80 side-facing seats on 24-inch center. The number of seats offered for ambulatory patients normally is 70; however, the number of crew govern the number of seats available. This aeromedical evacuation configuration utilizes the litter rigging equipment carried on the aircraft at all times and is intended to be used for short notice aeromedical evacuation missions. It is not necessary for all litter rigging equipment listed in this configuration to be installed unless mission requirements dictate. Litters will be installed between F.S. 798 and F.S. 1198. Two portable urinals and two portable lavatories will be installed. A minimum of 10 seats is required for cargo compartment area crewmembers (AECMs and LMs); additional seats are required for additional crewmembers. Aeromedical crew seat locations may vary in the cargo compartment based on patient/cabin observation requirements. Additional seats may be required for emergency equipment and litter patients based on patient medical conditions.
2. Seats are numbered for identification and referred to as seat 1 left, or seat 1 right, etc. Litter tiers are identified alphabetically. The number in the litter spaces indicates the maximum number of litters per each tier.
3. The dotted lines denote the crew rest facility.
4. Restraint rails and roller conveyors are stowed except as required for baggage pallet. Stow hinged walkways with hinged section hanging vertical to the floor. This paragraph applies to both operational missions and ARMs.
5. The average time to configure with four personnel is four hours.
6. Drawing in this configuration is not to scale with respect to actual location of aeromedical equipment i.e. In-flight medical kits, etc.
7. Ramp pallet is limited to 7500 lbs which includes the weight of the pallet/nets.
8. Portable lavatories (2) FS 320-400; Portable urinals (2) FS 1358-1398 right and left. Latrine facilities limit flight duration to approximately 12 hours

6.6. Aircraft Systems.

6.6.1. Oxygen.

6.6.1.1. Therapeutic oxygen. A minimum quantity of 100 liters of LOX is required for originating aeromedical evacuation missions. At en route stops, the total quantity must be sufficient to meet all anticipated patient needs. The MCD in conjunction with the PIC will ensure the LOX quantity is sufficient to complete the mission.

6.6.1.2. Patient emergency oxygen. On C-141 aircraft, oxygen mask containers (if available) should be installed per AFI 11-2C-141, V3, Addenda A, *Configuration/Mission Planning*. EPOS may be used as an alternate patient emergency O2 source. Floor-loaded patients will be provided EPOS.

6.6.1.2.1. Additional mask containers are placed aft of both troop doors near the PA panels and a container is positioned on the aft side of the stanchion at the head of each litter tier. Ensure patient oxygen containers are secured at the head end of the litter tier on the forward side of the stanchion pole, facing forward.

6.6.1.2.2. The oxygen manifold and hose assemblies are installed on either side of the stanchion per T.O. 1C-141B-9.

NOTE: Backrest position could obstruct the oxygen panels and mask containers of patients placed in litter tier positions. Ensure a mask is accessible to each litter patient.

6.6.2. Electrical.

6.6.2.1. Electrical power for 400 Hz medical equipment is provided by an approved C-141 pigtail adaptor located in the ECAS. Electrical power for 60 Hz medical equipment is provided by using the “modified” Avionics Frequency Converter.

6.7. Floor-loading Procedures.

6.7.1. Floor-loading Procedures. Floor-loading procedures for loading patients are authorized for all contingency operations when a time critical environment exists (i.e. non-secure landing zones, areas faced with enemy siege/hostile fire, humanitarian reasons, etc.), and minimum ground time is essential. Floor-loading procedures can be practiced/trained during ARMs, joint training operations, exercises, etc. The cargo area floor will be configured with all rollers stowed. The onload can be accomplished with only the center two columns of rollers stowed, if time constraints become critical. Two crewmembers are required to work simultaneously in securing the opposite sides of the litters to the floor (applies when securing two or three litters together).

6.7.1.1. Ambulatory Patients: If available, any cushioning material may be used for seating, to prevent the patient from having to sit on the bare cargo area floor. Seat ambulatory patients so they face forward in the aircraft. Attach a tie-down device (cargo tie-down strap) for each row of patients, in a manner that it will provide forward restraint and body stability. See T.O. 1C-141B-9 for proper use of the tie-down device.

6.7.1.2. Litter Patients: Position litters side-by-side and longitudinally on the cargo area floor, with the patient’s head toward the aft of the aircraft. A maximum 33 litters, comprised of 11 rows of three litters, can be floor-loaded. Medical equipment can be secured on a litter(s) in the forward

right sidewall litter tier. Secure the litters to the aircraft floor using the following procedures (see [Figure 6.1.](#)):

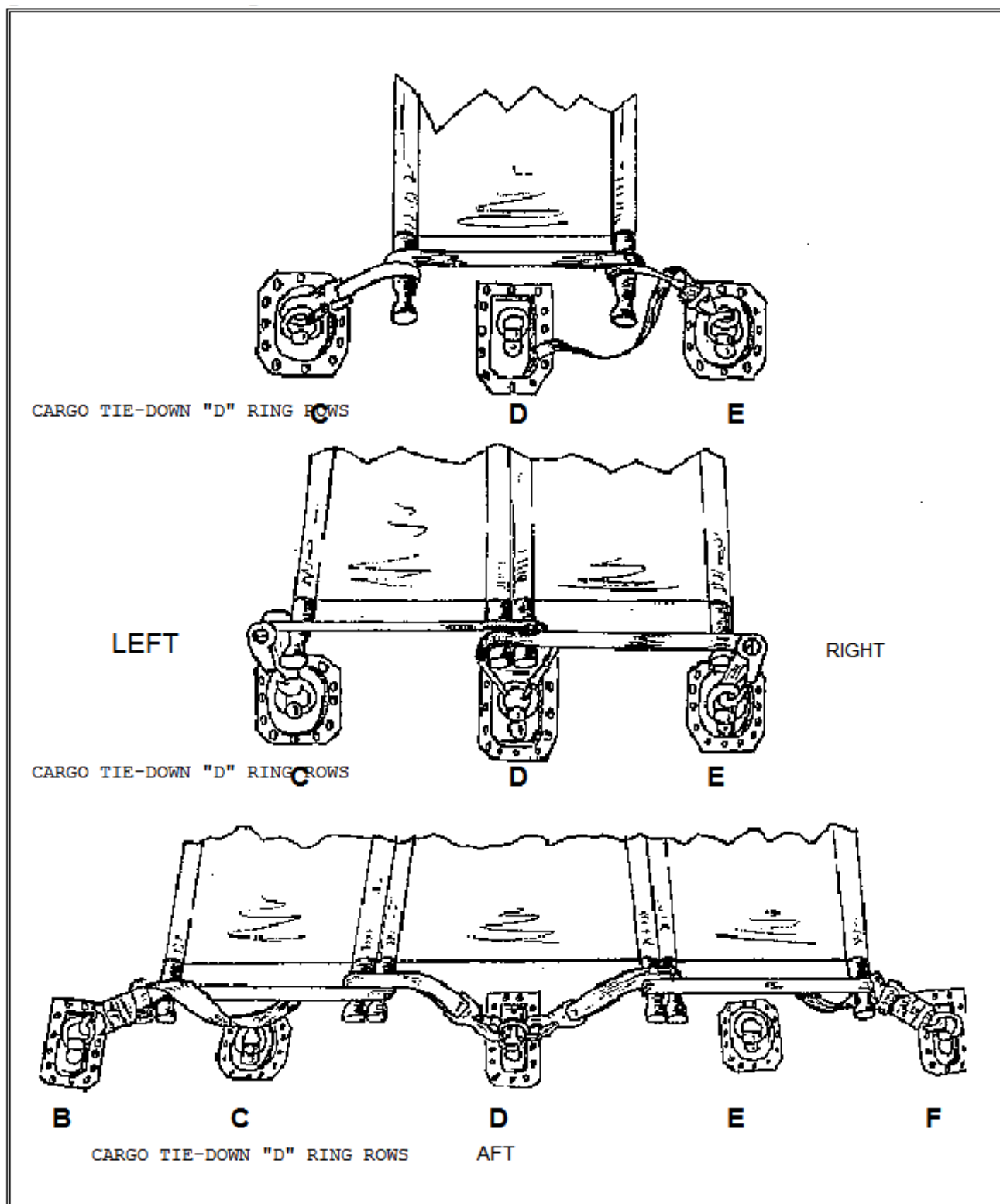
6.7.1.2.1. **One litter:** Center litter over “D” column. Use one tie-down device at each end of the litter. Connect clamp end of device to a tie-down ring in the “C” column, and run strap webbing over the litter handles, wrapping once around each handle. Attach the hook on the ratchet end of the tie-down device to a tie-down ring in the “E” column on the other side of the litter. Remove slack from strap webbing, and ratchet the tightening device (see T.O. 1C-141B-9 for proper use of the tie-down device). Repeat process at other end of litter. Ensure ratchets have 1½ turns.

6.7.1.2.2. **Two litters :** Place litters side-by-side, and align inboard litter handles over “D” column. Use two tie-down devices at each end of the litters. Connect clamp end of tie-down devices to tie-down ring in “D” column, and run strap webbing over both inboard handles, then over respective outboard handle. Do not wrap strap webbing around any handles. Attach the hook on the ratchet end of the tie-down devices to the tie-down ring in “C” or “E” column (as applicable). Remove slack from strap webbing, and ratchet the tightening device (see T.O. 1C-141B-9 for proper use of the tie-down device). Repeat process at other end of litter. Ensure ratchets have 1½ turns.

6.7.1.2.3. **Three litters:** Place litters side-by-side, and center inboard litter over “D” column. Use two tie-down devices at each end of the litters. Connect clamp end of tie-down devices to tie-down ring in “D” column, and wrap strap webbing once around applicable paired litter handles, then over respective outboard handle. Do not wrap strap webbing around out-board handles. Attach the hook on the ratchet end of the tie-down devices to the tie-down ring in “B” or “F” column (as applicable). Remove slack from strap webbing, and ratchet the tightening device (see T.O. 1C-141B-9 for proper use of the tie-down device). Repeat process at other end of litter. Ensure ratchets have 1½ turns.

6.7.1.3. Maximum altitude for floor-loaded patients is flight level 350 (FL350).

Figure 6.1. Floor-loading.



Chapter 7

KC-135

KC-135 CONFIGURATIONS

7.1. KC-135E/R/T STANDARD CONFIGURATION

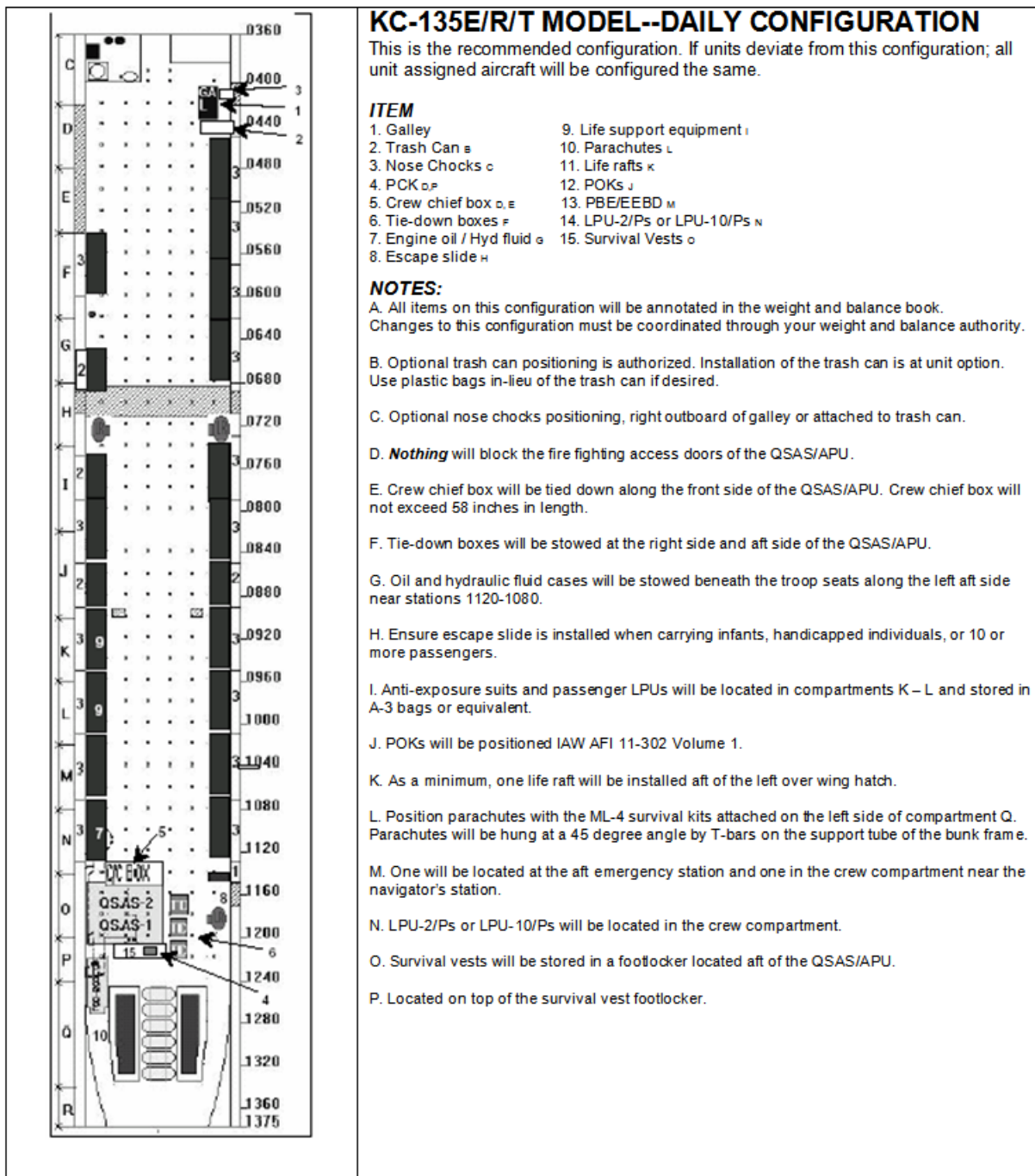


Table 7.1. C/KC-135 AIRCRAFT LSE CONFIGURATION

Minimum Required Equipment	Routine-	Trainer Tanker- Task- Force	Channel Missions
Mask, 358-series w/goggles	4	4	4
Mask, firefighter, smoke (see note 1)	2	2	2
Emergency Escape Breathing Device (EEBD) or Protective Breathing Equipment (PBE)	2	2	2
Emergency Passenger Oxygen System (EPOS) (see note 2)	20	60	60
Protective Clothing Kit (PCK)	1	1	1
Goggle, F lash Blindness, EEU-series (see note 3)	0	4	0
Parachute, BA-18M/BA-22	6	6	6
Life Raft, 20-Person (F-2B)	1	3	3
Life Pres, Adult-Child (A/C) or, Life Pres, LPU-5/P (Adult)	20	60	60
Life Pres, LPU-6/P (Infant)	5	5	5
Life Pres, LPU-2/P or -10/P (see note 4)	6	6	6
Kit, Survival, MD-1/ML-4	6	6	6
Survival Vest	6	6	6
Body Armor	0	6	0
Live-Aboard Kit (LAK)	0	0	0
Suit, Anti-Exposure, CWU-16/P	6	6	6
Kit, Passenger Demonstration	1	1	1

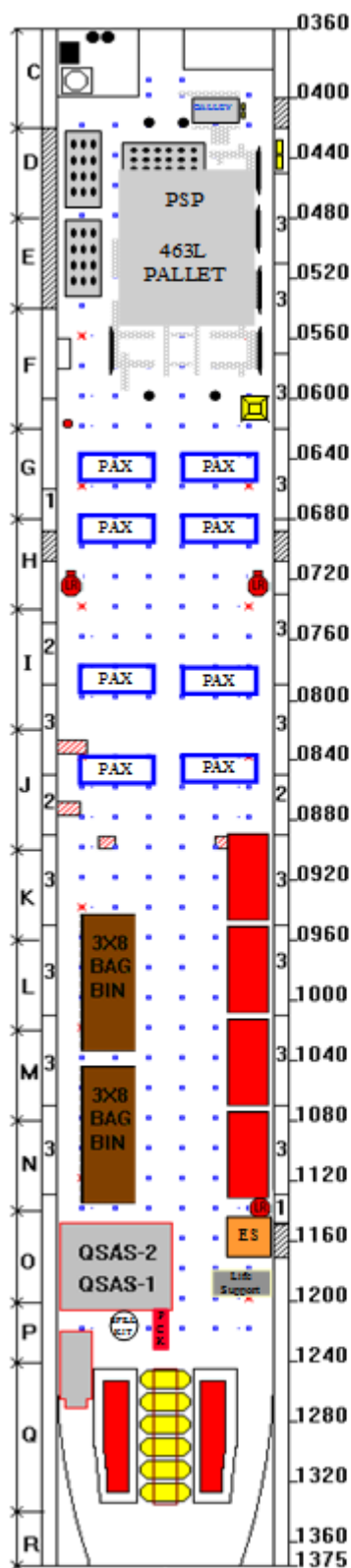
NOTES:

1. P/N 358-1506 series oxygen mask with goggles attached is the preferred smoke and fume protection for aircrew personnel. Firefighters smoke masks may be used until 358-series oxygen masks and goggles are available.
2. EPOS is the preferred passenger oxygen, smoke, and fume protection. POKs may be used as a substitute until EPOS is available. As a minimum, each aircraft will have one EPOS per passenger regardless of planned flight altitude. Preposition additional EPOS or POKs for increased scheduled PAX loads. Mixing of EPOS and POKs on the same aircraft is not authorized. If POKs are

used, provide one POK for each occupant IAW AFI 11-202, Volume 3 (formerly AFI 11-206). Preposition one EPOS or POK per maintenance personnel during PDM input.

3. MIL-G-635 goggles will be uploaded as sets to back-fill for missing or defective sets of EEU-series goggles.
4. LPU-2/P or -10/P LPUs are required to integrate with LSE and are designed for use by aircrew personnel. Adult/child LPUs are not compatible for use with parachutes and survival vests and must not be used as a substitute for these LPUs. Altus AFB is only required to preposition LPU-2/P or -10/P LPUs during routine trainer missions.

7.2. AE-1.



1 Pallet Aeromedical Evacuation (AE-1)

AE 1 LOAD PLANNING WORKSHEET

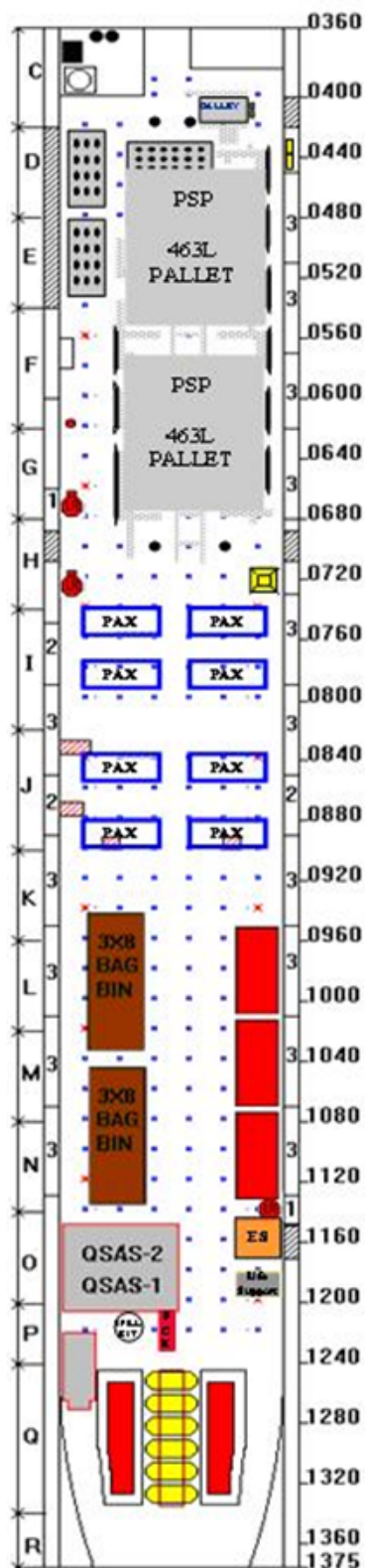
Aircraft Equipment Section (-21)		
Weight & Balance Official (Q/A)		
Air Refueling Program Manager		

AE-1. One PSP positioned in the number one pallet position, Station 504 centroid. Remove omni roller mats for minimal roller exposure. Utilize PSP-M with litters on the (R) side of the aircraft or PSP-S in pallet position one. Three maximum litter spaces are available. Airline type seating may accommodate 16 ambulatory patients. The (L) aircraft side aisle-way should be kept clear of all obstacles at all times, allowing access to the lavatory.

NOTES:

1. Requires 5 additional unmodified MA-1 Portable oxygen bottles (with harnesses, if available).
2. Crew Chief and tie down boxes will be placed inside of baggage bins which are offset to the left. And loaded as far aft toward the APU as possible.
3. One additional latrine cartridge required.
4. Boom Operator will ensure MX has locked out/tagged all incompatible power receptacles and updated/documented the appropriate info in MX 781 Forms.

7.3. AE-2.



2 Pallet Aeromedical Evacuation (AE-2)

AE 2 LOAD PLANNING WORKSHEET

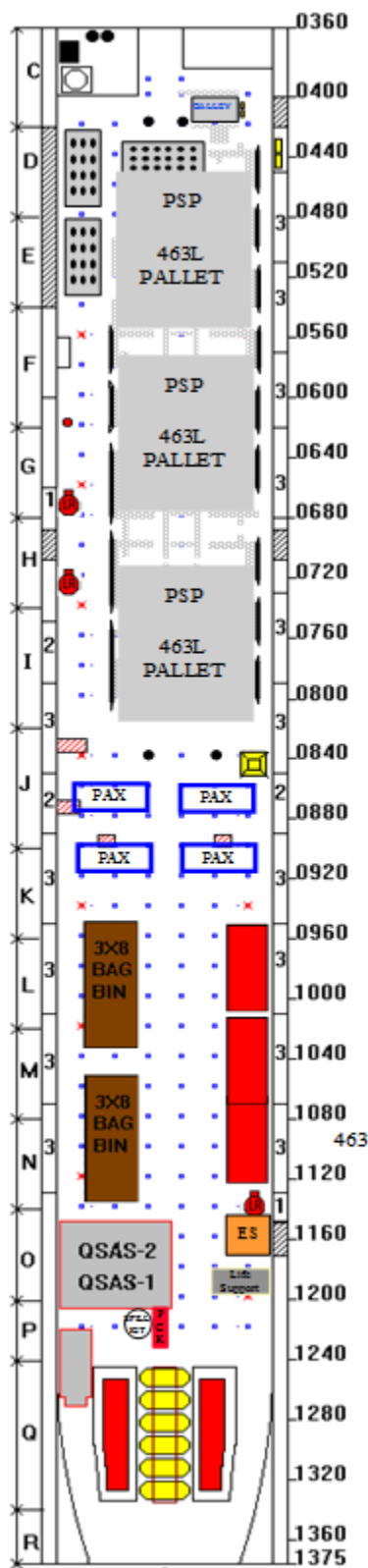
Aircraft Equipment Section (-21)		
Weight & Balance Official (Q/A)		
Air Refueling Program Manager		

AE-2. Two PSPs in pallet position 1 & 2, Stations 504, and 624 centroid respectively. Remove omni roller mats for minimal roller exposure. May utilize PSP-M, PSP-W or PSP-S in pallet position 2. Nine maximum litter spaces are available. Airline type seating if required may accommodate 16 ambulatory patients. The (L) aircraft side aisle-way should be kept clear of all obstacles at all times, allowing access to the lavatory.

NOTES:

1. Requires 5 additional unmodified MA-1 Portable oxygen bottles (with harnesses, if available).
2. Crew Chief and tie down boxes will be placed inside of baggage bins which are offset to the left. And loaded as far aft toward the APU as possible.
3. One additional latrine cartridge required.
4. Boom Operator will ensure MX has locked out/tagged all incompatible power receptacles and updated/documented the appropriate info in MX 781 Forms.
5. Ensure main landing gear inspection window doors are open before airline seats are installed.

7.4. AE-3.



3 Pallet Aeromedical Evacuation) (AE-3)

AE 3 LOAD PLANNING WORKSHEET

	Aircraft Equip Section (-21)		
	Weight & Balance Officer (QA)		
	Air Refueling Program Manager		

AE-3. Three PSPs placed in pallet position 1, 2, and 3, Stations 504, 624, and 774 centroid respectively. May utilize PSP-M, PSP-W or PSP-S in pallet position 3. 15 maximum litter spaces are available. Hardware such as extensions and ramps should be placed to cover the exposed rollers at the (R) overwing hatch. Airline type seating if required will accommodate 8 ambulatory patients.

NOTES:

1. Requires 5 additional unmodified MA-1 Portable oxygen bottles (with harnesses, if available).
2. Crew Chief and tie down boxes will be placed inside of baggage bins which are offset to the left. And loaded as far aft toward the APU as possible.
3. One additional latrine cartridge required.
4. Boom Operator will ensure MX has locked out/tagged all incompatible power receptacles and updated/documented the appropriate info in MX 781 Forms.

7.5. Mission Execution.

7.5.1. Limit total number of souls on board to 36.

7.5.2. Additional Mission Requirements include:

7.5.2.1. Five Un-Modified MA-1 Portable oxygen bottles with harnesses for AECMs (from tanker home station).

NOTE: If unable to meet this requirement, notify TACC.

7.5.2.2. Patient Support Pallet (PSP) with components based on configuration requirements.

7.5.2.3. Appropriate number aft facing stud mounted seats. (Installed at tanker home station). Coordination is required when airline seats are located at the staging point.

7.5.2.4. Functional Latrine and a minimum of two urine tubes.

7.5.2.5. Two latrine cartridges (from tanker home station).

7.5.2.6. Ensure there are a minimum of 25 passenger information cards (KC-135 Passenger Emergency Procedures), AFVA11-226, 01 Oct 2001 (from tanker home station). Cards can be ordered from the Air Force (AF) Publishing site.

7.6. Configuration Considerations.

7.6.1. Litter support provisions. There are no litter support provisions on the KC-135. The Patient Support Pallets (PSPs) will be used or patients will be floor-loaded.

7.6.2. The MCD will provide PIC/BO number of patients (litter and ambulatory/attendants) during Pilot/BO briefing.

7.6.3. The PSP is a standard 463L pallet designed to carry a combination of two litter towers holding three litters (KC-135) for a total of six litter patients, two rows of three seats for a total of six ambulatory patients or a litter/seat combination of one litter tower (3 litters) with one row of three seats.

NOTE: Each PSP comes with only two seats. If three or six seat configuration is desired, procure one to four additional seats from another PSP set. Each seat has storage capacity for required prepositioned life support (EPOS and life preserver).

7.6.4. DELETE

7.6.5. Ground Configuration.

7.6.5.1. The PSP will be transported to the aircraft by aerial port personnel, positioned and secured on the aircraft by the BO, and configured by AE personnel.

7.6.5.2. Exercise caution when maneuvering the pallet in and around the aircraft.

7.6.5.3. The BO should open the aircraft 3 hours prior to take off to facilitate AECM aircraft configurations. The BO will coordinate with the MCD if the aircraft will not be opened 3 hours prior to takeoff.

7.6.5.4. In cases when the KC-135 is configured at an en route stop, the MCD will coordinate with the PIC and BO, to determine when the aircraft should be configured for the next day's mission. When possible, the aircraft should be configured the day prior to the mission, before entering crew rest.

7.6.5.5. The MCD is ultimately responsible to ensure coordination between appropriate agencies has occurred or are in place to deliver PSP(s) to the aircraft.

7.6.6. Flight Configuration.

7.6.6.1. **PSP-W:** Two litter tiers along the outer aspect of the pallet supporting up to three patients per tier.

7.6.6.2. **PSP-M:** Three PSP seats and one litter tier along the outer aspect of the pallet supporting up to three litter and three ambulatory patients. During an inflight medical emergency, seats can be removed and placed off to the side to increase working space.

NOTE: Each seat weighs 65 LBS. Combinations of one to three seats may be carried on the PSP-M.

7.6.6.3. **PSP-S:** Six PSP seats supporting up to six ambulatory patients, medical attendants or crewmembers.

7.6.6.4. Each litter position is rated to hold 320 lbs. Each seat is rated to hold 260 lbs.

WARNING: On the KC-135, maximum PSP total load (PSP plus patients/equipment) will not exceed 2000 lbs. This includes the weight of the PSP. If weight is exceeded, supplemental restraint is required. Restrain PSP to 9 Gs forward. Use T.O. 1C-135-9 when applying supplemental restraint.

7.6.6.5. During preflight, the Charge Medical Technician (CMT) will estimate equipment weights IAW current AE In-Flight Kit, Packaging Guide/Allowance Standard, and provide weights per pallet and total equipment weight to the BO.

NOTE: When possible, configure the PSP seats to face aft.

7.6.7. **AE-1.** One PSP positioned in the number one pallet position, station 504 centroid. All possible omni rollers should be removed for minimal roller exposure. Utilize PSP-M with litters on the (R) side of the aircraft or PSP-S in pallet position one. Maximum litter spaces available is three. Airline type seating if required may accommodate 16 ambulatory patients. The (L) aircraft side aisle-way should be kept clear of all obstacles at all times, allowing access to the lavatory.

7.6.8. **AE-2.** Two PSPs in pallet position 1 & 2, stations 504, and 624 centroid respectively. May utilize PSP-M, PSP-W or PSP-S in pallet position 2. Maximum litter spaces available is nine. Airline type seating if required may accommodate 16 ambulatory patients. The (L) aircraft side aisle-way should be kept clear of all obstacles at all times, allowing access to the lavatory.

7.6.9. **AE-3.** Three PSPs placed in pallet position 1, 2, and 3, stations 504, 624, and 774 centroid respectively. May utilize PSP-M, PSP-W or PSP-S in pallet position 3. Maximum litter spaces available are 15. Airline seating if required will accommodate 8 ambulatory patients. Hardware (four extensions and two ramps) should be placed to cover the exposed rollers at the (R) overwing hatch. Attach two extensions to each pallet and cover remaining gap with ramps.

NOTE: If pallet #2 and #3 are not correctly placed, additional hardware will not fit correctly. The forward edge of pallet #3 must be positioned at station 720. If sufficient hardware is not available, consult the BO for an alternate means to cover the rollers. i.e. Utilize plywood secured over the rollers.

7.6.10. Ambulatory. Airline type seats should be used for seating ambulatory patients versus PAX or crewmembers. Aft Facing Stud Mounted seats and PSP seats are the only approved seats for use on the KC-135. Airline seats will be floor mounted to avoid tripping hazards associated with uneven floors with pallets.

7.6.10.1. Do not use palletized seats.

7.6.10.2. Aircraft should depart home station with airline seats installed.

7.6.10.3. If seat sets are positioned over the main landing gear lock inspection windows (station 900), ensure the inspection windows are opened prior to seat installation.

7.6.10.4. Ambulatory patients may be seated in the troop seats at the MCDs discretion.

7.6.11. **Baggage Bins.** The aircraft will leave home station with two baggage bins. Any equipment placed forward of the auxiliary power unit (APU) will be repositioned aft of the aft hatch or inside the baggage bins. Bins will be placed as far aft as possible without blocking access to APU fire access panels. Side load bins to the maximum extent possible to provide improved aisle space for patient movement.

7.6.11.1. With assistance from the BO; pre-configured tie down equipment and life rafts may need to be repositioned.

7.6.11.2. A clear egress route will be maintained from the crew compartment to the aft emergency escape hatch. Excess AE equipment (inflight kits) may be positioned aft of the seats or forward of the baggage bins. Placing non-critical equipment and supplies in this location increases space near patients and does not limit egress out the aft emergency escape hatch.

7.6.11.3. Coordinate with the BO prior to securing excess AE equipment and in-flight kits.

7.6.11.4. Pallet end stops protrude into egress paths. Remove front and aft pallet end stops once PSPs are locked in place. The BO will reinstall pallet end stops prior to unlocking PSPs.

7.6.11.5. The BO will ensure the roller system is properly configured prior to unlocking the pallets during unloading operations.

7.7. Aircraft Systems.

7.7.1. Oxygen.

7.7.1.1. Therapeutic oxygen. Not available on the KC-135. Utilize the PTLOX, MOST or compressed oxygen tanks as available.

7.7.1.2. Patient emergency oxygen. Utilize EPOS.

7.7.2. **Electrical.** The PSP does not have electrical provisions. Electrical power for 400 Hz medical equipment is provided by an approved KC-135, 400 Hz pigtail adaptor (P/N8564034-135) located in the Electrical Cord Assembly Set (ECAS). Electrical power for 60 Hz medical equipment is provided by “modified” Avionics Frequency Converter and Adaptive Electrical Pigtail (P/N 041238).

WARNING: Use only “modified” Avionics Frequency Converters which are easily identified with a black on orange placard on the top of the unit with the statement: “Approved for Use in a Fuel Vapor Environment, Contract No. F41622-01-D-0001, DO 5010.”

7.7.2.1. Maximum amperage provided by approved aircraft receptacle is limited to 15 amps. The Charge Medical Technician (CMT) will calculate total equipment amperage prior to connecting equipment to the aircraft or “modified” Avionics Frequency Converter.

CAUTION: The Avionics Frequency Converter requires 1.0 amp to drive the unit therefore; only 14 amps of remaining power are available through the approved aircraft electrical receptacle. Total amperage

exceeding 15 amps will trip the aircraft circuit breaker and cause equipment to either go to battery back-up power or fail.

7.7.2.2. The receptacle for equipment power supply differs based on the aircraft model type. For the KC-135E, utilize receptacle #3 on the P22 auxiliary panel. For the KC-135R and T, utilize the galley outlet receptacle.

WARNING: All other receptacles do NOT provide power in flight and will result in equipment failure. Receptacle #3 (KC-135E) and the galley outlet (KC-135R and T) receptacle provide power for equipment with 400 Hz compatibility.

7.7.2.3. Coordinate with BO for galley disconnect and pulling of circuit breaker before connecting the pigtail adaptor to the aircraft. (Galley oven and associated equipment is now inoperative). Home station maintenance group will lock out/tag all incompatible power receptacles and document on AFTO IMT 781A, **Maintenance Discrepancy and work Document**.

7.7.2.4. Use the following guidance when connecting/disconnecting the KC-135, 400 Hz pigtail adaptor (P/N 8564034-135) or “new” KC-135 Avionics Frequency Converter, Adaptive Electrical Pigtail (P/N 041238):

7.7.2.4.1. KC-135 E, R and T models have different labels for the circuit breakers to be pulled when connecting/disconnecting the AE pigtails. AECMs will request the BO to open/reset the appropriate circuit breakers when connecting/disconnecting the AE pigtail adaptor.

7.7.2.4.1.1. The “R” and “T” models identify the three circuit breakers as, GALLEY POWER located on the Main Circuit Breaker Panel. BO will pull all three circuit breakers.

7.7.2.4.1.2. The “E” model circuit breakers are identified as AUX POWER RECEPTACLE

NO. 3 located on the Main Circuit Breaker Panel in the same location as “R” and “T” models. BO will pull all three circuit breakers.

7.7.2.4.2. Insert KC-135 pigtail adaptor (P/N 8564034-135) from AE ECAS into aircraft receptacle. If using the “modified” KC-135 Avionics Frequency Converter, connect the Adaptive Electrical Pigtail (P/N 041238) securely to the Avionics Frequency Converters 25 ft Input Power Cable prior to securing to aircraft power receptacle.

7.7.2.4.3. BO will reset circuit breakers.

7.7.2.4.4. If using KC-135 pigtail adaptor (P/N 8564034-135) accomplish AC testing IAW 41-309, *AE Equipment Standards*. Once AC testing is accomplished, secure all ECAS connections with plastic tie-straps. Secure the portion of the ECAS cord closest to the pigtail to a non-moving aircraft part.

NOTES:

The “modified” KC-135 Avionics Frequency Converter does not require AC testing at or aft of the duplex outlets. Follow plastic tie-strap procedure in [7.7.2.4.4](#) for medical equipment plugs at the terminal end of the ECAS, AC electrical extension cord.

Tie-straps should be 15 inches in length to adequately cover all circumferences.

7.7.2.4.5. Normally medical electrical equipment should not be plugged in or removed in-flight.

If equipment must be removed or plugged in during flight operations request the BO pull the circuit breakers.

7.7.2.4.6. Ensure equipment is turned-off before disconnecting any plugs from ECAS outlets in-flight.

7.7.2.4.7. After equipment is removed or plugged in, request BO open/reset circuit breakers. Re-secure plastic tie-straps, as required.

WARNING: The Airdyne 3500 Air Compressor is not approved for use on the KC-135.

7.7.3. **Temperature.** The greatest challenge to ground operations during summer is potential high cabin temperatures. The KC-135 interior heats up very quickly and can place significant thermal stress on patients and crew.

7.7.3.1. The KC-135 air conditioning system is not normally operated on the ground. AE crews will request ground air conditioning units when ambient air temperature is 84 degrees or greater.

7.7.3.2. The PIC/MCD should request an air conditioning cart whenever patients/crew are on board and the ambient temperature may exceed a comfortable level.

7.7.3.3. In extreme heat conditions, utilize two air conditioning carts to cold soak the aircraft. Locate one each at the overwing hatch and rear hatch.

7.7.3.4. Other alternatives are: schedule morning or evening departure/arrivals; open over wing exits to promote air circulation (hatches must be installed prior to engine start); and in extreme situations MCD may request the PIC to declare AIREVAC priority.

7.7.3.4.1. The PIC may request "AIREVAC priority" for preferential ATC handling due to inadequate temperature control during preflight and taxi. AIREVAC priority will only be used for that portion of the flight requiring expedited handling. It is the PIC's responsibility to use this option for bonafide medical situations that demand priority handling.

7.7.3.5. In-flight the aircraft's temperature can be regulated by the BO. Optimal patient locations are mid-cabin, mid-tier for a litter patient.

7.7.3.6. The floor is very cold and typically the ceiling area is very warm. Ensure the bottom litter patients have blankets available.

7.7.4. **Lighting.** KC-135 lighting consists of ceiling mounted incandescent lights and one positional light, located on (R) hand side, forward cabin (map light).

7.7.4.1. Some KC-135 models have a second positional light, located on the (L) hand side, forward cabin.

7.7.4.2. Positional lights are helpful to illuminate specific patients in the litter stanchion area.

7.7.4.3. AECMs will bring supplemental lighting on board, as required.

7.7.4.4. The entire crew and all patients and personnel aboard exercise extreme caution when moving in the main cabin.

7.8. Miscellaneous Information.

7.8.1. **Patient meals.** Meals will be box-lunch variety (cold), since the galley is rendered inoperable. Patients on special diets will require the appropriate box lunches.

7.8.1.1. The Patient Movement Requirements Center (PMRC) should coordinate with the medical facility nutritional support centers to prepare specialty meals. Schedule meals to arrive to aircraft 1 ½ hours prior to departure.

7.8.1.2. The appropriate mission support agency (detachment, squadron etc) should make arrangements with Fleets Service to obtain coolers for meal storage. Box lunches may be broken down, storing only sandwiches and cold drinks in the coolers, to maximize cooler storage space.

7.8.2. **Hygiene.** Latrine capacity is limited. This should be taken into consideration for planning procedures. The aircraft will depart home station with an operable latrine, a minimum of two urine tubes and two latrine cartridges.

7.8.2.1. The CMT will verify the latrine is fully functional when uploading the PSP. Patients and attendants should be encouraged to use available restroom facilities prior to enplaning the aircraft.

7.8.2.2. Normal soap/water hand washing is not readily available on the KC-135. In-flight kit allowance standards follow infection control guidance and provide chemical hand cleaner. Chemical wipes may also be used.

7.8.2.3. Ensure chemical hand cleaners are readily available for patient use.

7.9. Egress Considerations.

7.9.1. Consistent with all AE missions, pre-mission planning includes an egress plan coordinated with the BO and communicated with the entire crew.

7.9.2. The two primary egress points are the aft emergency escape hatch and the crew entry chute. The aft escape hatch is equipped with a slide; the crew entry chute is equipped with a ladder typically stored in the cargo compartment.

7.9.3. The over-wing hatches are also available as emergency exits.

7.9.4. The BO is ultimately responsible for egress of cargo compartment occupants.

7.9.5. When more than one BO is on-board, a BO will be in the cargo compartment during critical phases of flight.

7.9.6. Life rafts will be adjacent to the over wing hatches. When tied down appropriately, the life rafts should not protrude into the egress path.

7.9.7. Do not use Material Handling Equipment (MHE) or Patient Loading System (PLS) during ground evacuations as they may interfere with Crash Fire Rescue (CFR).

7.10. Floor-loading Procedures

7.10.1. Patients may be floor-loaded with standard cargo tie-down straps, in coordination with the Boom Operator (BO).

7.10.2. Do not place litters in front of exits or on top of landing gear inspection window covers (marked in red, yellow, or black).

7.10.3. Maximum floor-loaded litter capacity is eight patients. Maximum ambulatory capacity depends on aircraft configuration.

NOTE: To prevent damage to the aircraft floor, appropriate shoring must be used under floor-loaded litters. Coordinate with the BO to secure appropriate shoring material. An aircraft pallet may also be used to secure the litter(s).

7.10.4. Maximum altitude for floor-loaded patients is flight level 350 (FL350).

Chapter 8

C-5

8.1. Configuration Considerations.

Table 8.1. C-5 AIRCRAFT LSE CONFIGURATION

Minimum Required Equipment	Routine	Contingency
Mask, 358-series w/goggles	7	7
Mask, Firefighter, Smoke (see note 1)	14	14
Mask, AWACS (MBU-12/P or -5/P)	6	6
Emergency Escape Breathing Device (EEBD) or Protective Breathing Equipment (PBE)	8	8
Mask, Passenger (PAX) Oxygen	101	101
Emergency PAX Oxygen System (EPOS) (see note 2)	88	88
Protective Clothing Kit (PCK)	2	2
Goggle, Flash Blindness, MIL-G-635	8	8
Harness, Restraint, PCU-17/P	2	2
Parachute, BA-18M/BA-22 (see note 3)	As Required	As Required
Life Raft, 25-Person	4	4
Life Pres, Adult-Child (A/C) or, (see note 4)	100	100
Life Pres, LPU-5/P (Adult)	80	80
Life Pres, LPU-6/P (Infant)	7	7
Life Pres, LPU-2/P or -10/P (see note 5)	As Required	As Required
Survival Vest (see note 6)	As Required	8
Body Armor	0	8
Suit, Anti-Exposure, CWU-16/P	8	8
Kit, Minimum Survival (MSK)	0	0
Kit, Passenger Demonstration	1	1

NOTES:

1. Part number (P/N) 358-1506 series oxygen mask with goggles attached is the preferred smoke and fume protection for aircrew personnel. Firefighters smoke masks may be used until 358-series oxygen masks and goggles are available.
2. EPOS is the preferred passenger oxygen, smoke, and fume protection. As a minimum, each aircraft will have one EPOS per passenger. Preposition additional EPOS for increased scheduled passenger loads.

3. Add additional parachutes as required by other configuration publications.
4. The adult/child is the preferred LPU for patients/passengers. Units may use MD-1 and LPU-5/P LPUs when adult/child LPUs are not available. As a minimum, each aircraft will have one LPU for each passenger.
5. LPU-2/P or -10/P LPUs are required to integrate with LSE and are designed for use by aircrew personnel. Adult/child LPUs are not compatible for use with parachutes and survival vests and must not be used as a substitute for these LPUs.

8.1.1. On the C-5, litter stanchions/straps/cantilever arms do not exist in the courier or troop compartments. Secure litters to three broken over seat backs (as applicable). Coordinate with LM prior to securing patients.

8.1.2. When transporting patients in the courier compartment, enplane/deplane litter patients via an elevator or high rise lift truck through the #5 service door. Only mobile litter patients should be placed in the courier compartment since the patient must ambulate 10 feet through the crew hallway. Enplane/deplane ambulatory patients via the crew service door and crew stairwell. Only able-bodied ambulatory patients should be placed in the courier compartment since the patient must climb multiple flights of steep stairs.

8.1.2.1. When transporting patients in the troop compartment, enplane/deplane litter or ambulatory patients via an elevator or high rise lift truck through the #6 service door. Enplane/deplane ambulatory patients via a stair truck (if available) through the troop door and #6 service door. Only able bodied ambulatory patients should be placed in the troop compartment since the patient must climb multiple flights of steep stairs.

8.2. Aircraft Systems.

8.2.1. Oxygen.

8.2.1.1. Therapeutic oxygen. Not available on the C-5. Utilize the PTLOX, MOST or compressed oxygen tanks as available. Coordinate with LM prior to therapeutic oxygen placement.

8.2.1.1.1. Patient transport in courier compartment. Secure PTLOX or MOST in the cargo compartment and run oxygen lines through the hand hold in the floor escape hatch. If using compressed oxygen tanks (H-tanks), secure tanks in the closet across from the courier seat.

8.2.1.1.2. Patient transport in troop compartment. Secure PTLOX or MOST in the cargo compartment and run oxygen lines up the side of the troop stairwell. If using compressed oxygen tanks, secure tanks to the stairwell guard.

8.2.1.1.3. The PTLOX or MOST require up to 300 feet of additional oxygen connecting hose (DISS receptacle to DISS plug) from the cargo compartment to the patient.

8.2.1.1.4. Patient emergency oxygen. Ambulatory patients will utilize the passenger emergency oxygen system. Litter patients will not have access to emergency oxygen. Ensure EPOS is available.

8.2.1.2. DELETE

8.2.1.2.1. DELETE

8.2.1.2.2. DELETE

8.2.1.2.2.1. DELETE

8.2.1.2.2.2. DELETE

8.2.2. Electrical

8.2.2.1. Electrical power for medical equipment is provided by using the “modified” Avionics Frequency Converter.

8.2.2.2. Coordinate with the LM prior to electrical outlet use and prior to electrical frequency converter placement. The Avionics Frequency Converter may be plugged into an aircraft 115-200V/400 Hz AC outlet.

8.2.2.2.1. The 400 Hz outlets can maximize the 30 amp limit of the Avionics Frequency Converter. (There are 35 amps available on the right side of the aircraft and 55 amps available on the left side of the aircraft). Secure the electrical frequency converter(s) to the cargo floor. Distribute the power via the ECAS to either the courier or troop compartments.

8.2.2.2.2. Patient transport in courier compartment. Secure the converter near cargo compartment station 1320 and route the ECAS cord through the hand hold in the floor escape hatch.

8.2.2.2.3. Patient transport in troop compartment. Secure the converter near cargo compartment station 1820 and route the ECAS cord up the side of the troop stairwell.

Chapter 9

C-21

C-21 CONFIGURATION

9.1. C-21 AE configuration.

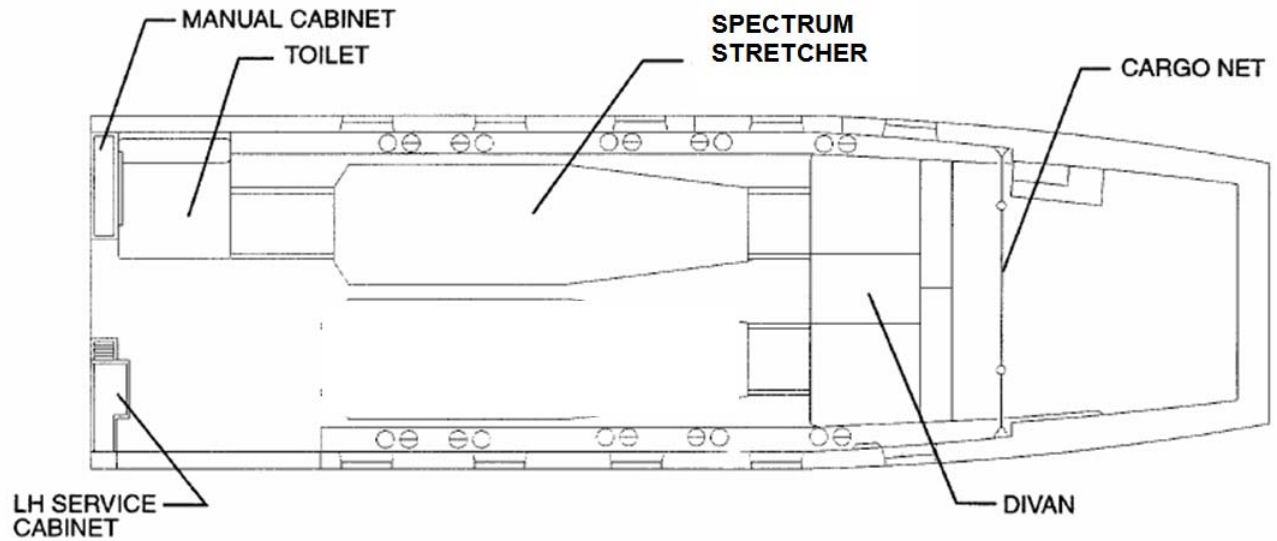


Table 9.1. C-21 AIRCRAFT LSE CONFIGURATION

Minimum Required Equipment	Routine	Contingency	Permanent-Transfer
Mask, 359-series w/goggles	2	2	2
Emergency Escape Breathing Device (EEBD)	2	2	2
Emergency Escape Breathing Device (EEBD)	11	11	11
Mask, Passenger (PAX) Oxygen	11	11	11
Emergency Passenger Oxygen System (EPOS) (see note 1)	10	10	10
Life Raft, T-9AF/LRU-14-series	0	1	1
Life Pres, Adult-Child (A/C)	10	10	10
Life Pres, LPU-2/P or -10/P (see note 2)	0	2	2
Survival Vest (see note 3)	0	2	0
Body Armor	0	2	0
Suit, Anti-Exposure, CWU-16/P	As Required	2	2
Kit, Minimum Survival (MSK)	1	1	1
Kit, Passenger Demonstration	1	1	1

NOTES:

1. EPOS is the preferred passenger oxygen, smoke, and fume protection. As a minimum, each aircraft will have one EPOS per passenger.
2. LPU-2/P or -10/P LPUs are required to integrate with LSE and are designed for use by aircrew personnel. Adult/child LPUs are not compatible for use with survival vests and must not be used as a substitute for these LPUs.
3. Survival vests provide crewmembers the necessary survival items while waiting for rescue or return to duty.
4. Aircraft flying overwater to PDM will load 1 life raft, two LPU-2/P or -10/P LPUs, and two anti-exposure suits to support crewmembers, as required.

9.2. SPECTRUM 500-LP (MILITARY VERSION) MODEL 2500US

9.2.1. General. The SPECTRUM 500 LP is the current unit approved for use on C-21 aeromedical evacuation missions. The litter system has self-contained oxygen, vacuum, compressed air, electrical power and an overhead light. This unit plugs directly into aircraft power.

9.2.2. The aircraft manufacturer will install the SPECTRUM on the right side of the aircraft with the closet removed.

9.2.3. Specifications.

9.2.3.1. Bench Length: 75" (190.5cm) [including end mounts]

9.2.3.2. Width: 17" (43.25cm)

9.2.3.3. Height: 10.5" (26.67cm) to top of bench

9.2.3.4. Standard Unit Weight: 150 lbs. (68.04kgs)

9.2.3.5. Air Pump Capacity: 11.89 Lpm @ 42 psi [4.0Amps 4.3 lbs (1.95kgs)]

9.2.3.6. Vacuum Pump: 10.47 Lpm @ 15 in. hg. [2.5Amps 4.3lbs (1.95kgs)]

9.2.3.7. Power Required: 28VDC Aircraft electrical power (45.5 Total Amps.)

9.2.3.8. Electrical Supply: (2) 115 volt AC duplex receptacles provide 3 amps per duplex

9.2.3.8.1. (1) 28 volt DC receptacle provides 7.5 amps

9.2.3.9. Dual 350 watt, 115 volt 15.6 Amp AC Inverters 4.8lbs. (2.177kgs)

9.2.3.10. Oxygen Supply: 3,500 L.

9.2.3.11. Dual Pneumatics

9.2.3.12. Mobile Overhead Pneumatics

9.2.3.13. Supply Outlets: Oxygen, Air, Vacuum

9.2.3.14. IV mounts (4)

9.2.3.15. IV Pole

9.2.4. Components.

9.2.4.1. Stretcher. Removable and designed to carry a patient in either the prone or supine position. The bottom edge has four Teflon lined rings, which slide along the patient loading ramp. A closed pneumatic cylinder allows the patient's backrest to be lifted up and down. The stretcher locks into the ends of the modular base. The stretcher has two armrests.

9.2.4.2. Overhead Pneumatic Console. Mounts on the back of the modular base with two quick connect pins. It can slide forward and aft along the base. The hoses to the oxygen, air, and vacuum outlets connect on the forward end of the modular base using the pneumatic quick connect couplings.

9.2.4.3. Patient Loader. A high polished aluminum folding ramp used to slide the stretcher between a gurney on the ground and the modular base. The patient loader connects to the base using an equipment mount located at the end of the base. Two short legs at the connecting end of the patient loader swing down to support the unit. The ramp is then unfolded on the ground outside

the aircraft using a pair of telescoping legs. The legs are extended from a spring loaded, foot-operated release. When the release is activated, the outboard end of the ramp may be adjusted up and down to allow for easier stretcher movement into the aircraft.

CAUTION: The Patient Loader maximum weight capacity is 350 lbs.

9.2.4.4. Equipment Table. Connects to the modular base using both equipment mounts on either end of the base. The table is designed to allow auxiliary medical equipment to be belted to the table and secured for flight.

9.2.4.5. IV Pole. Fits in any of the four equipment mounts and is for securing IV fluids or approved pole mounted medical equipment. It telescopes up and down and may also be mounted directly to the side of the stretcher at the shoulder position.

9.2.4.6. Seat Rail Adapter. Fits on the seat rails of the aircraft. The SPECTRUM base is mounted to this adapter. The adapter is secured to the rail with a series of drop in pins.

NOTE: Upon AE crew arrival to the aircraft, ensure the SPECTRUM oxygen and suction equipment is available.

9.2.5. Spectrum Preflight.

9.2.5.1. If aircraft power is not on, direct PIC to turn aircraft power on.

9.2.5.2. Turn on oxygen supply valve, located on the lower aft end of the unit, to full counter-clockwise position. Check oxygen pressure gauge to ensure it reads at least 1700 psi.

9.2.5.3. Turn on panel and overhead light switches to check for proper operation.

9.2.5.4. Turn on vacuum pump switch. Ensure both vacuum gauges read at least 14 hg.

9.2.5.5. Turn on air compressor switch. Ensure both air gauges read at least 46-52 psi.

9.2.5.6. Turn on electrical inverter switch "A." Wait 15 seconds to ensure inverter turns on. Connect test load (if available) of AC power, not to exceed 3 amps. Disconnect the test load and shut off the inverter. Perform same check on electrical inverter "B."

9.2.5.7. Ensure all circuit breakers are in operating position.

9.2.5.8. Check for proper operation of stretcher locks.

9.2.5.9. Turn off all switches and ensure the oxygen supply valve is closed until needed.

NOTE: Notify the PIC and maintenance if preflight problems are encountered. To ensure the safety of the patient and to prevent damage to the aircraft, do not allow ground support or medical personnel to load the patient or equipment without direct supervision of a qualified AECM.

9.2.6. Performance. Ensure aircraft power is available.

9.2.6.1. Electrical. Turn on the switch to inverter A or B. Connect equipment into the appropriate outlet. Do not to exceed 3.1 amps.

9.2.6.2. Air Compressor. Turn on the air compressor switch. Attach equipment hose to receive compressed air.

9.2.6.3. Vacuum Pump. Turn on the vacuum pump. Insert the Ohio suction regulator with SPECTRUM adaptor. Determine suction setting requirements and set to desired setting.

9.2.6.4. Lighting. Turn on the overhead light switch.

9.2.6.5. Oxygen. Insert oxygen regulator with the SPECTRUM adaptor. Open valve on top of the oxygen tank. Listen for any audible leaks. Select desired oxygen setting. Monitor the oxygen gauge.

9.2.6.6. Patient Loading System. To mount the system, release the stretcher locks at the forward end of the modular base.

9.2.6.6.1. With the patient loader in the folded position, insert the round yoke pin in the equipment mount.

9.2.6.6.2. Unfold the patient loader and legs. Place the unit into the ground support plate. Ensure the short support legs are down and secure.

9.2.6.7. Enplaning the patient. Engage the lock along the patient loading ramp.

9.2.6.7.1. Position the stretcher on the patient loader using a four-man lift. The head of the patient may be positioned either forward or aft based on senior medical personal preference. Ensure all armrests are stowed in the litter unit.

9.2.6.7.2. Raise the level of the loading ramp using the spring-loaded foot release.

9.2.6.7.3. Push the stretcher onto the base from the patient loader.

9.2.6.7.4. Insert the stretcher pins through the aft locking plate.

9.2.6.7.5. Close and lock the forward stretcher plate, ensuring pins are firmly located within the stretcher lock. Assess the patient.

9.2.6.8. Deplaning the patient. Open the forward stretcher plate, disengaging the locks.

9.2.6.8.1. Mount the patient loading system per 8.2.6.6. Engage the lock along the patient loading ramp.

9.2.6.8.2. Raise the level of the loading ramp using the spring-loaded foot release.

9.2.6.8.3. Slide the litter out of the aircraft along the loading ramp. Lower the ramp to the lowest position. Remove the stretcher from the ramp using a four-man lift.

9.2.6.9. Dismounting. Lower the telescoping legs to the lowest position.

9.2.6.9.1. With palms flat and thumbs out, raise the leg assembly out of the ground support plate.

9.2.6.9.2. Fold the loading ramp keeping palms flat and thumbs out. When fully folded, remove the mounting yoke from the modular base. Stow the loading ramp for flight.

9.3. Loading Instructions for Neonatal Transport System (NTS) onto SPECTRUM Unit.

9.3.1. Ensure all loading crewmembers, including pilot, are briefed and fully understand loading procedures and individual responsibilities.

9.3.2. Ensure NTS is sled unit type and is strapped in place, on a support gurney.

9.3.3. Loading requires five individuals: one aircrew member (pilot) inside the aircraft to guide the unit, and four individuals on the outside of the aircraft to slowly slide the unit up the ramp. The air-

craft will be prepared with the SPECTRUM-specific loading ramp placed into the appropriate location with the bolt in front of the ramp inserted into the hole at the head of the SPECTRUM base unit. Ensure the ramp is angled such that it does not touch the sides of the doorway, and does not contact the toilet in front of the SPECTRUM unit.

9.3.4. If available, the triangular ramp extension should be secured to the SPECTRUM unit and the ramp, extending toward the seat directly across from the SPECTRUM unit. Remove seat cushions from the forward left passenger seat.

9.3.5. The legs of the ramp must be placed into the steel support stand. The ramp should be in the high position (the height is adjustable), such that it is similar in height to the gurney at full-up position. The gurney is wheeled into place, with the monitors of the NTS facing toward the rear of the aircraft (the rubber wheel will be at the front left when the gurney is pulled up to the ramp).

9.3.6. Release the support straps of the sled to the gurney.

9.3.7. The four crewmembers on the outside of the aircraft will slowly advance the sled up the ramp. The gurney may be pulled away when the sled is completely on the ramp. The two crewmembers closest to the cabin door will exercise caution not to damage the doorframe and left, forward seat armrest when loading. The flight crewmember on-board must be obeyed for changes in loading tempo to prevent damage to aircraft inside far wall.

9.3.8. Once stabilized on the ramp, the aft left crewmember on the outside of the aircraft will follow the aft end of the NTS into the aircraft to help guide the unit in and lock the unit into the base.

9.3.9. The flight crewmember inside the aircraft will ensure that the sled angles onto the base unit as it advances.

9.3.10. The remaining outside crewmember and the crewmember, which followed the NTS into the aircraft, will remove the ramp and supplement lateral support after the NTS sled is secured to the base unit by the spring-loaded metal plate mechanism on each end.

9.3.11. Insert the power cord into the spectrum power outlet.

9.3.12. If a patient is in the NTS, open the base unit oxygen tanks (located under the rear end of the base unit). Plug the oxygen and air intake hoses of the NTS into the appropriate access ports on the spectrum base.

9.3.13. When cleared by the PIC, turn the spectrum base power on. Check the NTS to ensure the AC power source is recognized.

9.3.14. After all personnel are on-board, load the ramp and lateral stabilizer supplement up and place on board.

9.3.15. For NTS deplaning, reverse the steps above.

9.4. Additional C-21 Configuration (Med-Evac Configuration {1 Stretcher}) IAW TO-1C-21A-1

9.4.1. Electrical and oxygen resources are very limited in this configuration.

9.4.2. Maintenance should install stretcher on left side of the aircraft. (Right side installation is labor intensive and thus not practical for this use.)

9.4.3. Ambulatory only, low-risk patients who require minimal nursing care are good candidates for transport. Patients will be able to ambulate on and off the aircraft without assistance.

NOTE: Stretcher serves as emergency get-down litter only.

9.4.4. Maximum ambulatory seats available are two due to space limitations required for medical equipment, baggage and AECMs.

NOTE: PMRC will consult validating theater flight surgeon to establish low-risk patient parameters.

9.5. Aircraft Systems.

9.5.1. Oxygen.

9.5.1.1. Therapeutic oxygen. Available if SPECTRUM unit is in place. If SPECTRUM unit is not in place, utilize PTLOX or compressed oxygen tanks as available.

9.5.1.2. Patient emergency oxygen. Utilize passenger emergency oxygen system.





9.5.2. **Electrical.** 28 VDC for power to the spectrum. Equipment will operate on battery power if SPECTRUM unit is not in place.

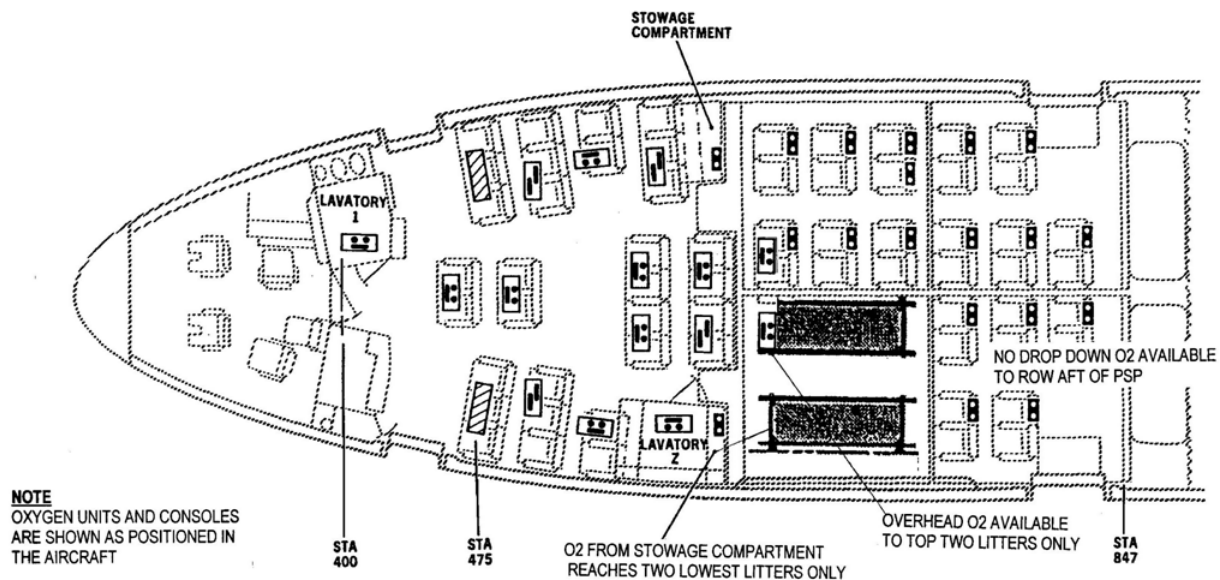
Chapter 10

KC-10

10.1. Configuration H.

AE-1
ONE PSP IN 2 LEFT POSITION

-  SEAT BACK AND SIDEWALL OXYGEN COMPARTMENTS
-  OVERHEAD O2 - SINGLE UNIT, TWO MASKS
-  OVERHEAD O2 - DOUBLE UNITS, MORE THAN TWO MASKS
-  OVERHEAD O2 CONSOLES - ADD'L CREWMEMBERS

**NOTES:**

1. When aircraft is in Delta ("D") configuration: configuration H provides six litter spaces using the PSP-W or a combination of three litter spaces and three seats using the PSP-M. **A total of four litter patients may be carried.** Litter patient position is based on accessibility to emergency oxygen.
 - a. Inboard litter tier: patients will be placed in top two litter positions only. Two emergency oxygen masks are available from the overhead console.
 - b. Inboard seats: oxygen is available to only the first forward seat. AECMs with a portable oxygen bottle may occupy the aft two seats.
 - c. Outboard litter tier: patients will be placed in the bottom two litter positions only. Two emergency oxygen masks are available in the aft wall of Lavatory Z forward of the PSP.
 - d. Outboard seats: oxygen is available in the aft wall of Lavatory Z forward of the PSP, to only the first forward seat. AECMs with a portable oxygen bottle may occupy the aft two seats.

2. Patients/passengers will not occupy the row of seats immediately aft of patient litters. These seats will be occupied by crewmembers with access to aircraft portable oxygen cylinders.

Table 10.1. KC-10 AIRCRAFT LSE CONFIGURATION

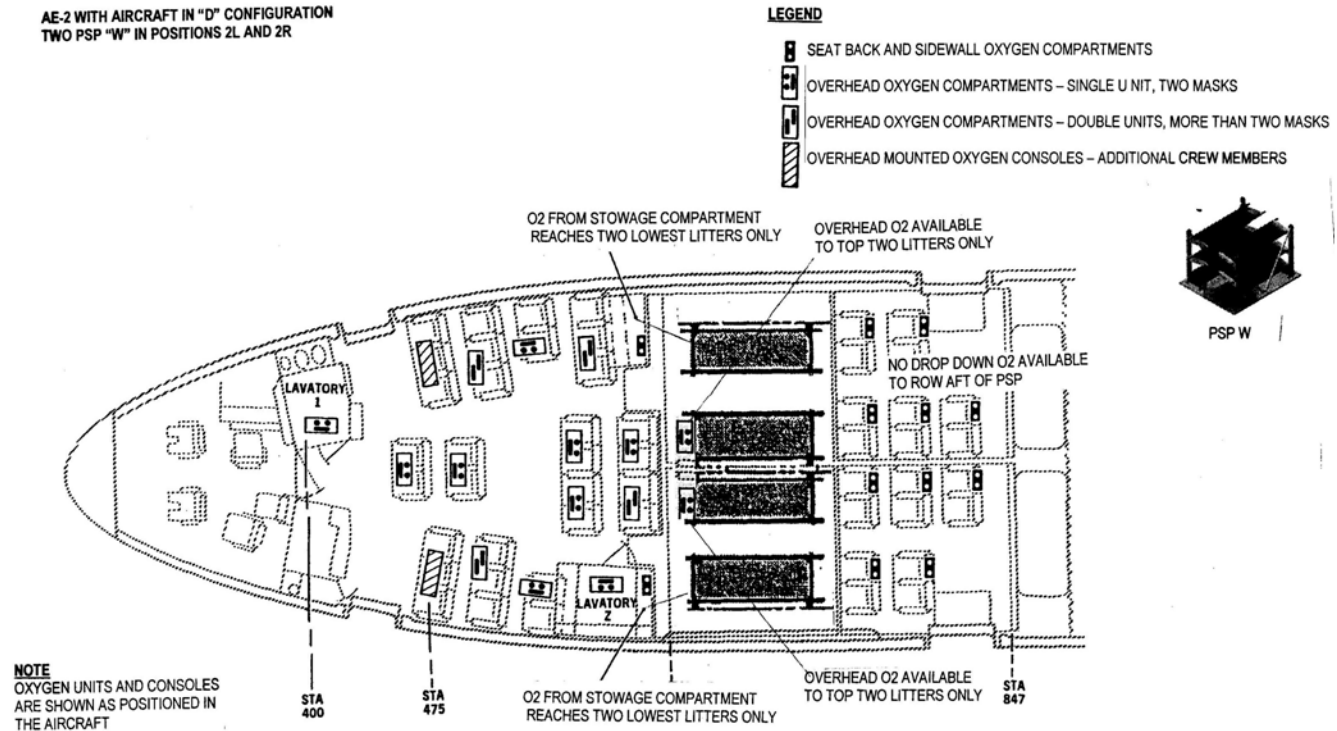
Minimum Required Equipment	Routine	Contingency
Mask, 358-series w/goggles	16	16
Emergency Escape Breathing Device (EEBD) or Protective Breathing Equipment (PBE)	2	2
Hose, 6-Ft. w/cable assemblies	4	4
Emergency Passenger Oxygen System (EPOS) (see note 1)	21	As Required
Protective Clothing Kit (PCK)	1	1
Life Raft, 7-Person (LRU-1/P) (see note 2)	1	1
Life Pres, Adult-Child (A/C) (see note 3)	21	As Required
Life Pres, LPU-6/P (Infant) (see note 4)	4	4
Life Pres, LPU-2/P or -10/P (see note 5)	0	4
Auxiliary Survival Kit (ASK)	1	1
Survival Vest (see note 6)	0	4
Body Armor	0	4
Suit, Anti-Exposure, CWU-16/P	4	4
Kit, Minimum Survival (MSK)	0	0
Kit, Passenger Demonstration	1	1

NOTES:

1. The generating/dispensing oxygen system is the primary source of oxygen for patients/passengers which are located in overhead dispensers and passenger seatbacks. EPOS can be used for smoke, and fume protection. As a minimum, each aircraft will have one EPOS per passenger. Preposition additional EPOS for increased accommodation unit (IAU) configurations, as required. Preposition one EPOS per maintenance personnel during PDM input.
2. Preposition raft for 25- and 27-pallet configuration only (Code E).
3. Preposition additional LPUs for IAUs configurations, as required. As a minimum, each aircraft will have one LPU for each crewmember and passenger. For IAU configuration, preposition 80 LPUs.
4. Maintain four ea. per IAU or the capability to configure 50% of PAI, whichever is greater.
5. LPU-2/P or -10/P LPUs are required to integrate with LSE and are designed for use by aircrew personnel. A/C LPUs are not compatible for use with survival vests and must not be used as a substitute for these LPUs.

6. Survival vests provide crewmembers the necessary survival items while waiting for rescue or return to duty.

10.2. Configuration I.



NOTES:

1. When aircraft is in Delta ("D") configuration: configuration I provides 12 litter spaces using the PSP-W or a combination of six litter spaces and six seats using the PSP-M. **A total of eight litter patients may be carried.** Litter patient position is based on accessibility to emergency oxygen.
 - a. (L) pallet/inboard litter tier: patients will be placed in top two litter positions only. Two emergency oxygen masks are available from the overhead console.
 - b. (L) pallet/inboard seats: oxygen is available to only the first forward seat. AECMs with a portable oxygen bottle may occupy the aft two seats.
 - c. (L) pallet/outboard litter tier: patients will be placed in the bottom two litter positions only. Two emergency oxygen masks are available in the aft wall of Lavatory Z, forward of the PSP.
 - d. (L) pallet/outboard seats: oxygen is available in the aft wall of Lavatory Z forward of the PSP, to only the first forward seat. AECMs with a portable oxygen bottle may occupy the aft two seats.
 - e. (R) pallet/inboard litter tier: patients will be placed in top two litter positions only. Two emergency oxygen masks are available from the overhead console.

- f. (R) pallet/inboard seats: oxygen is available from the overhead console to only the first forward seat. AECMs with a portable oxygen bottle may occupy the aft two seats.
 - g. (R) pallet/outboard litter tier: patients will be placed in the bottom two litter positions only. Two emergency oxygen masks are available in the aft wall of the stowage compartment forward of the PSP.
 - h. (R) pallet/outboard seats: oxygen is available in the aft wall of the stowage compartment forward of the PSP to only the first forward seat. AECMs with a portable oxygen bottle may occupy the aft two seats.
2. Patients/passengers will not occupy the row of seats immediately aft of patient litters. These seats will be occupied by crewmembers with access to aircraft portable oxygen cylinders.

10.3. Configuration Considerations.

10.3.1. Litter support provisions. There are no litter support provisions on the KC-10. The Patient Support Pallets (PSPs) will be used or patients will be floor-loaded. (See para 10.7. for floor-loading procedures). Coordinate with BO prior to securing patients.

10.3.2. DELETE.

10.3.3. Litter patients will be placed with their head towards the flight deck or emergency oxygen will not be accessible.

10.3.3.1. The aeromedical evacuation crew (AEC) must verify the location of emergency oxygen for litter patients on PSPs before enplaning.

10.3.4. The PSP is a standard 463L pallet designed to carry a combination of two litter towers holding three litters (KC-10) for a total of six litter patients or a litter/seat combination of one litter tower (3 litters) with one row of three seats.

NOTE: Each PSP comes with only two seats. If three seat configuration is desired, procure one to four additional seats from another PSP set. Each seat has storage capacity for required prepositioned life support (EPOS and life preserver).

10.3.5. The MCD is ultimately responsible to ensure coordination between appropriate agencies has occurred or are in place to deliver PSP(s) to the aircraft.

10.3.6. Ground Configuration.

10.3.6.1. The PSP will be transported to the aircraft by aerial port personnel, positioned and secured on the aircraft by the BO, and configured by the AE crew. The BO will move the side restraint rails in position 2R to accommodate the PSP.

10.3.6.2. Exercise caution when maneuvering the pallet in and around the aircraft.

10.3.6.3. The BO should open the aircraft 3 hours prior to take off to facilitate AECM aircraft configurations. The BO will coordinate with the MCD if the aircraft will not be opened 3 hours prior to takeoff.

10.3.6.4. In cases when the KC-10 is configured at an en route stop, the MCD will coordinate with the PIC and BO, to determine when the aircraft should be configured for the next day's mission. When possible, the aircraft should be configured the day prior to the mission, before entering crew rest.

10.3.6.5. The MCD is ultimately responsible to ensure coordination between appropriate agencies has occurred or are in place to deliver PSP(s) to the aircraft.

10.3.7. Flight Configuration.

10.3.7.1. **PSP-W:** Two litter tiers along the outer aspect of the pallet supporting up to three patients per tier.

10.3.7.2. **PSP-M:** Three PSP seats and one litter tier along the outer aspect of the pallet supporting up to three litter and three ambulatory patients. Empty weight: 820 lbs. During an inflight medical emergency, seats can be removed and placed off to the side to increase working space.

NOTE: Each seat weighs 65 LBS. Combinations of one to three seats may be carried on the PSP-M.

10.3.7.3. **PSP-S:** Not used on the KC-10. Seat ambulatory patients and attendants in the KC-10 airline seats.

10.3.7.4. Each litter position is rated to hold 320 lbs. Each seat is rated to hold 260 lbs.

10.3.7.5. During preflight, the CMT will estimate equipment weights IAW current *AE Inflight Kit, Packaging Guide/Allowance Standard*, and provide weights per pallet and total equipment weight to the BO.

10.3.7.6. Coordinate with the BO prior to securing excess AE equipment and in-flight kits.

NOTE: PSP seats should be configured to face forward.

10.3.7.7. **Configuration H.** One PSP positioned in pallet position 2L. Utilize PSP-W or PSP-M configurations.

WARNING: The PSP in pallet position 2L is located in close proximity to the cargo door. Exercise caution when the cargo door is open; no cargo netting may be available.

10.3.7.8. **Configuration I.** Two PSPs in pallet positions 2L & 2R. Utilize PSP-W or PSP-M configurations.

WARNING: Location of aircraft seats may prevent use of PSP ramps immediately forward of the PSP to cover exposed rollers. In addition, PSP spacer does not fit between pallets in Configuration M. Provide safety briefings to patients, passengers, attendants and litter bearers as needed.

10.4. Aircraft Systems.

10.4.1. Oxygen.

10.4.1.1. Therapeutic oxygen. Not available on the KC-10. Utilize PTLOX, MOST or compressed oxygen tanks as available.

10.4.1.2. AECM emergency oxygen. AE crew will utilize the four portable oxygen cylinders located in the crew bunks. An additional portable oxygen cylinder will be procured from the Air Refueling Operators (ARO) station. Coordinate with the PIC/BO. Attach mask to bottle, but do not perform PRICE check.

NOTE: Bunk occupants will use EPOS in place of the portable oxygen cylinders.

10.4.1.3. Patient emergency oxygen. Ambulatory patients and patients on PSPs will utilize the aircraft drop down/seat or wall mounted emergency oxygen system. Dixie cup masks provide 22 minutes of oxygen regardless of cabin altitude. Floor-loaded patients will use EPOS.

10.4.2. Electrical.

WARNING: DELETE

10.4.2.1. Electrical power for medical equipment is provided by “modified” Avionics Frequency Converter and Adaptive KC-10 Electrical Pigtail (P/N 041238).

10.4.2.2. Coordinate with the BO prior to electrical outlet use and prior to electrical frequency converter placement.

10.4.2.3. There are four electrical outlets available in the cargo compartment which may be used for AE and they provide a source of 115-200V/400 Hz. These outlets are installed along the

right-hand cargo compartment wall, approximately 10 inches above the floor, aft of the cabin doors (including the deactivated over wing door).

10.4.2.4. The four 400 Hz outlets provide a total of 20 amps.

10.5. Miscellaneous Information.

10.5.1. For patient privacy and comfort, brief passengers and crew not to congregate around the PSP. If feasible, do not seat families with small children near the PSPs.

10.5.2. Patient meals.

10.5.2.1. The PMRC should coordinate with medical facility nutritional support centers to prepare specialty meals. Schedule meals to arrive to aircraft 1 ½ hours prior to departure.

10.5.2.2. Refrigeration is available for a small amount of patient meals (less than 5). Use of the galley must be coordinated with the BO. The appropriate mission support agency (detachment, squadron etc) should make arrangements with Fleets Service to obtain coolers for meal storage. Box lunches may be broken down, storing only sandwiches and cold drinks in the coolers, to maximize cooler storage space.

10.6. Egress Considerations.

10.6.1. Consistent with all AE missions, pre-mission planning includes an egress plan coordinated with the BO and communicated with the entire crew.

10.6.2. Primary egress points are 1L/1R forward doors and 2L/2R mid doors, equipped with emergency escape slides.

10.6.3. The BO is ultimately responsible for egress of passenger cargo compartment occupants.

10.6.4. Do not use MHE or PLS during ground evacuations as they may interfere with CFR.

10.7. Floor-loading Procedures.

WARNING: Due to the unavailability of self-presenting emergency oxygen, patients will only be floor-loaded in emergency or contingency situations.

10.7.1. Patients may be floor-loaded in the forward passenger area. Patients are positioned with head toward the flight deck, longitudinally on the aircraft floor. Seats will need to be removed. In the “B” (16 seats) or “D” configuration (75 seats), a single litter may be placed on the aircraft centerline, replacing the first two rows of seats. Alternatively, when in the “D” configuration, remove the two rows of seats immediately aft of the first row of outboard seats. Two litters may be placed in this position. Roll packs may be looped through the track on the fuselage of the aircraft immediately above this location and some medical equipment placed in the seats in the third row aft of the litters.

NOTE: Seating will be very limited in the “B” configuration. In this case, the PIC and MCD will coordinate with the appropriate C2 agency to determine who is required for the mission.

10.7.2. Use A-7000 tie-down fittings in the seat tracks and 5000 lb tie-down devices. Shoring is not required, however the litters should be placed with metal stirrups in the seat tracks, or put protective material under the litter stirrups to protect the aircraft floor. Seats will be removed as necessary. In no case will seats be broken over and used to secure litter patients. Use one tie-down device at the end of

each litter. Connect clamp end of device to a tie-down ring, and run strap webbing over the litter handles, wrapping once around each handle. Attach the hook on the ratchet end of the tie-down device to the tie-down ring on the other side of the litter. Remove slack from strap webbing and ratchet the tightening device. Repeat process at the other end of the litter, working simultaneously with two AECMs at either end of the litter.

10.7.3. One litter: Center the litter on the pallet longitudinally (parallel to the 108 inch side). Use one tie-down device at each end of the litter. Connect the clamp end of the device to the second tie-down ring from the corner of the pallet. Run strap webbing over the litter handles, wrapping once around each handle. Looking from the center of the litter, between the handles, the strap should go over the handles, then the end should wrap around the handles, then up underneath the handle between the strap and the litter canvas. Then rout the ends of the straps to the second tie-down rings from each corner. Pull out any slack, and tighten the ratchet. The stirrups may be used for additional restraint if required.

10.7.4. Two litters: Place the litters on the pallet centered on the second tie-down ring from the corner of the pallet. The litters should be approximately 20 inches apart. Tie down the litters individually using the single-litter procedures, except use the corner ring and center pallet ring for each litter.

10.7.5. Three litters: Place litters side by side, centered on the pallet. Connect the clamp end of the tie-down device on the second ring from the corner on the 108 inch side of the pallet. Wrap strap around each individual litter handle and the applicable paired litter handles. Attach hook on the ratchet end of the tie-down device on the corresponding second ring from the corner on the opposite 108 inch side. Remove slack and ratchet the tightening device. Take a second strap and wrap around the center pair of handles and tie down to the second tie-down rings on the 88 inch side of the pallet utilizing the one litter tie-down procedures. Repeat the process at the other end of the litter.

10.7.6. In an emergency evacuation, the cargo barrier net and curtain may be raised or removed and a pallet subfloor may be placed on the cargo compartment.

10.7.7. Available litter spaces and ambulatory seating will depend on the aircraft's mission configuration.

10.7.8. Maximum altitude for floor-loaded patients is flight level 350 (FL350).

Figure 10.1. Floor-Loading.

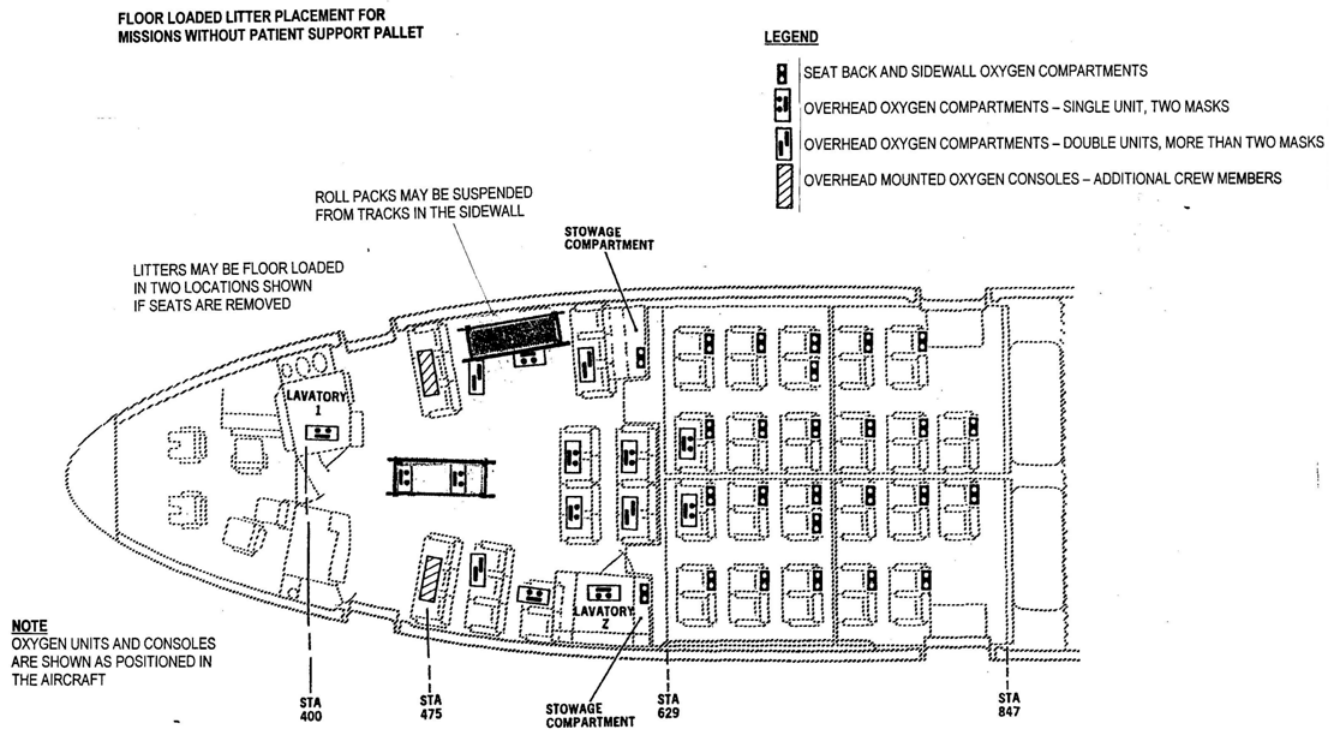


Table 10.2. KC-10 AUXILIARY SURVIVAL KIT (ASK) COMPONENTS

ITEM	Quantity
*Survival radio, PRC-series (w/spare battery)	1 each
*Signal, smoke and illumination, MK-13 or MK-124	2 each
*Signal kit, personnel, distress, A/P 25S-5A	1 each
*Light, marker, distress, SDU-5/E or equivalent (w/IR filter and flash guard)	1 each
*Compass, lensatic or magnetic	1 each
*Mirror, signal, type I or II	1 each
*Kit, first aid (NSN 6545-00-139-3671)	3 each
Survival kit (7-person life raft accessory container)	1 each
Whistle, police, plastic	1 each
Container, waterproof, w/matches	1 each
Knife, pocket	1 each
Stone, sharpening	1 each
Water, drinking, flexible package (FPDW) or Water, drinking, canned	72 ounces or 60 ounces
Desalinator, reverse osmosis, -35	1 each
Bag, water storage, 5-quart	1 each
Sponge, olive drab (NSN 7920-01-383-7936)	1 each
Bucket, bailing	1 each
Rations, survival, type ST	3 each
Repair kit, life raft, w/pliers	1 each
AFPAM 36-2246, <i>Aircrew Survival</i>	1 each
Packet, sea marker dye	1 each
Kit, fishing	1 each
Ointment, sunburn, preventive	7 each
Blanket, combat casualty (NSN 7210-00-935-6665)	3 each
Cord, nylon, type I, 30-ft length	2 each
Hood, winter, wool	7 each

* - Minimum mandatory equipment

Chapter 11

T-9AF/LRU-14-SERIES LIFE RAFT ACCESSORY KIT COMPONENTS TABLE

11.1. Aeromedical Evacuation (AE) Missions:

11.1.1. ALS units, when supporting AE missions and aircrew, will build and maintain the equipment listed in [Table 11.3](#). The equipment will be placed in kits assigned to, and deployed with, an AE in-flight kit (UTC FFQDM). Each ALS unit supporting an AE squadron will maintain a minimum of two AE ALS kits ([Table 11.3](#)) for WRM. **EXCEPTION:** PACAF and USAFE ALS squadrons supporting AE operations will build and maintain eight kits. Individual MAJCOMs will direct what units will maintain for local training and operational missions.

11.1.2. Once built, MAJCOMs may authorize ALS sections maintaining AECM support kits to seal and place the kits in serviceable storage inspection status and inspect on an annual basis if time-change items' expiration dates permit. Upon notification of the need to deploy the AECM support kits, the ALS section will inspect the kit, place each item on a normal inspection cycle, and deliver the kits to the designated organization within 24 hours.

Table 11.1. T-9AF/LRU-14-SERIES LIFE RAFT ACCESSORY KIT COMPONENTS

ITEM	QUANTITY
*Survival Radio, PRC-series (w/spare battery)	1 each
*Signal, smoke and illumination, MK-13 or MK-124	4 each
*Signal Kit, personnel distress, A/P 25S-5A	1 each
*Light, marker, distress, SDU-5/E or equivalent (w/IR filter and flash guard)	1 each
*Compass, lensatic or magnetic	1 each
*Mirror, signal, type I or II	1 each
*Kit, first aid (NSN 6545-00-139-3671)	3 each
Whistle, police, plastic	1 each
Container, waterproof, w/matches	1 each
Knife, pocket	1 each
Water, drinking, flexible package (FPDW) or Water, drinking, canned	56 ounces or 50 ounces
Desalinator, reverse osmosis, -06	1 each
Bag, water storage, 5-quart	3 each
Sponge, olive drab (NSN 7920-01-383-7936)	1 each
Bucket, bailing	1 each
Rations, survival, general purpose (GP) or survival type (ST)	3 each or 3 each
Repair kit, life raft, w/pliers	1 each
AFPAM 36-2246, <i>Aircrew Survival</i>	1 each
Packet, sea marker dye	1 each
Kit, fishing	1 each
Ointment, sunburn, preventive	3 each
Blanket, combat casualty (NSN 7210-00-935-6665)	3 each
Cord, nylon, type I, 30-ft length	1 each
Stone, sharpening	1 each
6' x 6' plastic sheet	1 each
Tubing, latex, rubber, 6' length	1 each
Light, safety, cylume light stick	3 each
Pump, life raft (commercial – E.A.M.)	1 each
Canopy (commercial – E.A.M.)	1 each
Mast, canopy (commercial – E.A.M.)	1 each
Rods, canopy (commercial – E.A.M.)	5 each

* - Minimum mandatory equipment

PROTECTIVE CLOTHING KIT (PCK) COMPONENTS TABLE**Table 11.2. PROTECTIVE CLOTHING KIT (PCK) COMPONENTS**

ITEM	Quantity
Apron, clear vinyl	2 each
Gloves, rubber	2 pair
Gloves, aramid	1 pair
Shears, metal cutting	1 each
Vermiculite	5 pounds
Bags, plastic	3 each
Tape, masking, 1"	1 roll
Dustpan, rubber	1 each
Broom, whisk, 10"	1 each
Goggles, MIL-G-635 (see note 1)	<i>(See MDS configuration tables for specific quantities.)</i>

NOTES:

1. Not applicable to KC-10 and KC-135 aircraft.
2. Neutralizers for corrosive agents are not part of this kit.

Table 11.3. AECM SUPPORT KIT EQUIPMENT

AE EQUIPMENT	AECM SUPPORT KIT EQUIPMENT QTY
Mask, 358-series w/goggles Note 1	7
Survival Vest Note 2	7
Body Armor Note 2	7
Life Pres, LPU-10/P Note 3	7
Suit, Anti-Exposure, CWU-16/P Note 3, 4	7

NOTES:

1. Cabin/Cargo Area Aircrews will use the EPOS already prepositioned on the aircraft for emergency oxygen requirements for preplanned flights up to flight level 350 (FL350). For pre-planned flights above FL350, all AE aircrew must have a quick-don mask with goggles attached to a walk-around bottle available for use.
2. Survival vests provide crewmembers the necessary survival items while waiting for rescue or return to duty. The SRU-21/P is also authorized. AE Squadron personnel are authorized to request assigned equipment for unit training events.
3. Required for preplanned overwater flights only.
4. CWU-16/P or MAJCOM approved equivalent IAW T.O. 1-1-641.

11.2. Forms Adopted. AFTO IMT 244, **Industrial/Support Equipment Record**, AFTO IMT 781A, **Maintenance Discrepancy and work Document**, DD Form 365-4, **Weight and Balance Clearance Form F - Transport/Tactical**, DD Form 1149, **Requisition and Invoice/Shipping Document**.

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DCS/Air and Space Operations

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

The following is a list of publications that are required to effectively manage an ALS Program. LSOs, LSSs, supervisors, and technicians should possess a working knowledge of these documents. This list is not all-inclusive.

AIR FORCE PUBLICATIONS

AFI 10-201, *Status of Resources and Training System*

AFI 10-212, *Air Base Operability*

AFI 10-402, *Mobilization Planning*

AFI 10-403, *Deployment Planning and Execution*

AFI 10-601, *Mission Needs and Operational Requirements Guidance and Procedures*

AFI 10-1101, *Operations Security*

AFI 11-202, Vol 3, *General Flight Rules*

AFI 11-215, *Flight Manuals Program (FMP)*

AFPD 11-3, *Life Support*

AFI 11-301, Vol 1, *Aircrew Life Support (ALS) Program*

AFI 11-301, Vol 2, *Maintenance and Configuration Requirements for Aircrew and Aircraft- Installed Life Support Equipment (LSE)*

AFI 11-401, *Flight Management*

AFI 11-403, *Aerospace Physiological Training Program*

AFPD 16-8, *Arming of Aircrew, Mobility, and Oversea Personnel*

AFI 21-101, *Aerospace Equipment Maintenance Management*

AFI 21-103, *Equipment Inventory, Status, and Utilization Reporting*

AFI 21-112, *Aircrew Egress Systems Maintenance*

AFI 32-2001, *The Fire Protection Operations and Fire Prevention Program*

AFI 36-2201, *Developing, Managing, and Conducting Training*

AFPAM 91-211, *USAF Guide to Aviation Safety Investigation*

AFI 91-301, *Air Force Occupational and Environmental Safety, Fire Prevention, and Health (AFOSH) Program*

AFI 91-302, *Air Force Occupational Environmental Safety, Fire Protection, and Health (AFOSH) Standards*

AFMS 13C1, *Current Operations Flight*

AFMS 31C1, *Life Support Section*

AFOSH STANDARDS

AFOSH STD 48-137, *Respiratory Protection Program*

AFOSH STD 91-31, *Personnel Protective Equipment*

AFOSH STD 91-46, *Materials Handling and Storage Equipment*

Operations Manual J-1603, *Life Support Applique (J-Box)*

Operations Manual TS-3417-3, *Manual for J-Box Communications Service Monitor*

Abbreviations and Acronyms

ACM—additional crewmember

| ADS—aerial delivery system

AE—aeromedical evacuation

AEC—aeromedical evacuation crews

AECM—aeromedical evacuation crewmember

| AECT—aeromedical evacuation control team

AET—aeromedical evacuation technician

ASK—auxiliary survival kit

AFI—Air Force instruction

AFRC—Air Force Reserve Command

ALS—aircrew life support

AMC—Air Mobility Command

AMCC—air mobility control center

| AMD—air mobility division

AMOCC—air mobility operation control center

ANG—Air National Guard

AOR—area of responsibility

APCC—aerial port control center

| APS—aerial port squadron

ARC—Air Reserve Component

ARM—aeromedical readiness mission

BO—boom operator

C2—command and control
CC—commander
CCATT—critical care aeromedical transport team
CFR—crash/fire/rescue
CG—center of gravity
CMT—charge medical technician
CONOPS—concept of operations
CONUS—continental United States
CRAF—civil reserve air fleet
DIRMOPFOR—director, mobility forces
DO—director of operations
DOD—Department of Defense
ECAS—electrical cable assembly set
EEBD—emergency escape breathing device
EPOS—emergency passenger oxygen system
ERO—engines running onload or offload
ETIC—estimated time in commission
IAW—in accordance with
ICAO—international civil aviation organization
ISS—in system select
LM—loadmaster
LPU—life preserver unit
LSAS—litter station augmentation set
MAJCOM—major command
MCD—medical crew director
MDS—mission design series
MHE—material handling equipment
NAF—numbered Air Force
NGB—National Guard Bureau
NTS—neonatal transport system
OPORD—operations order
OPR—office of primary responsibility

PACAF—Pacific Air Forces

PBE—protective breathing equipment

PCK—protective clothing kit

PDO—publications distribution office

PIC—pilot in command

POK—passenger oxygen kit

PLS—patient loading system

PSP—patient support pallet

PTLOX—portable therapeutic liquid oxygen

RDS—records disposition schedule

TACC—tanker airlift control center (AMC)

TCN—transportation control number

TMO—traffic management

TO—technical order

USAFE—United States Air Forces in Europe

WHFO—warfighting headquarters

Terms

Aeromedical Evacuation (AE)—The movement of patients under medical supervision to and between medical treatment facilities by air transportation. (Joint Pub 1-02)

Aeromedical Evacuation Crew Members (AECM)—Qualified flight nurses (FN), aeromedical evacuation technicians (AET), and unqualified student trainees under the direct supervision of a qualified instructor or FN, performing AE duties.

Aircrew Life Support Equipment (ALSE)—ALSE encompasses all equipment that is part of the 412A life support system or as designated by ANG/DOOS.

Area of Operations (AO) (DOD)—An operational area defined by the joint force commander for land and naval forces. Areas of operation do not typically encompass the entire operational area of the joint force commander, but should be large enough for component commanders to accomplish their missions and protect their forces. Also called AO. See also area of responsibility; joint operations area; joint special operations area.

Bare Base—A base having minimum essential facilities to house, sustain, and support operations to include, if required, a stabilized runway, taxiways, and aircraft parking areas. A bare base must have a source of water that can be made potable. Other requirements to operate under bare base conditions form a necessary part of the force package deployed to the bare base.

Passenger (PAX)—Individual aboard aircraft for the purpose of transportation.

Pilot Unit—Unit designated by the MAJCOM FM to handle LOGDET management responsibilities for an UTC. Pilot units are listed in the header record of each UTC and LOGDET.

Primary Crewmember—Any person, rated or nonrated, and required on aircraft to accomplish flying mission.

Theater (DOD)—The geographical area outside the continental United States for which a commander of a combatant command has been assigned responsibility.

Unit Manpower Document (UMD)—A detailed staffing list reflecting the distribution of staffing allocations into a finite structure of authorizations (by work center).

Unit Type Code (UTC)—A five-character, alphanumeric code that uniquely identifies each type unit of the Armed Forces.